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Volume CLXXV No. 2283 The SPHERE, London, October 23, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

**THE SYSTEMATIC DESTRUCTION OF GERMANY'S MEANS TO WAGE WAR: THE COMPLETE DEVASTATION WROUGHT BY AMERICAN FLYING FORTRESSES in their "obliteration raids" by daylight over Europe—a graphic picture which shows all that remains of the great Focke-Wulf plant at Marienburg, in East Prussia, after the attack on Saturday, October 9**

On pages 118-119 of this issue we give some of the most vivid pictures yet published of the manner in which the big American bombers are devastating Germany by daylight and destroying her aircraft factories and other industrial centres. The "obliteration raid" has now reached such a pitch of precision that it would seem that any given target can be so covered by bombs that, after the raid, it literally ceases to exist. This picture was taken by a reconnaissance aircraft after the raid on the important Focke-Wulf plant at Marienburg, in East Prussia, on October 9. At this factory great numbers of F.W. 190s were produced for the *Luftwaffe*: they will be produced no more. Study of this photograph reveals that only one of the large buildings has escaped direct hits, but even then it has been damaged by blast from at least six near misses. The compact pattern of the bomb-fall assumed almost exactly the shape of the plant itself. Brig.-General Curtis E. Le May, who commands the U.S. Eighth Air Bombardment Division which carried out the attack, said—"The picture and the report simply confirm what we felt—that our crews wiped out that plant." The exact manner in which this feat was achieved is shown on pages 118-119

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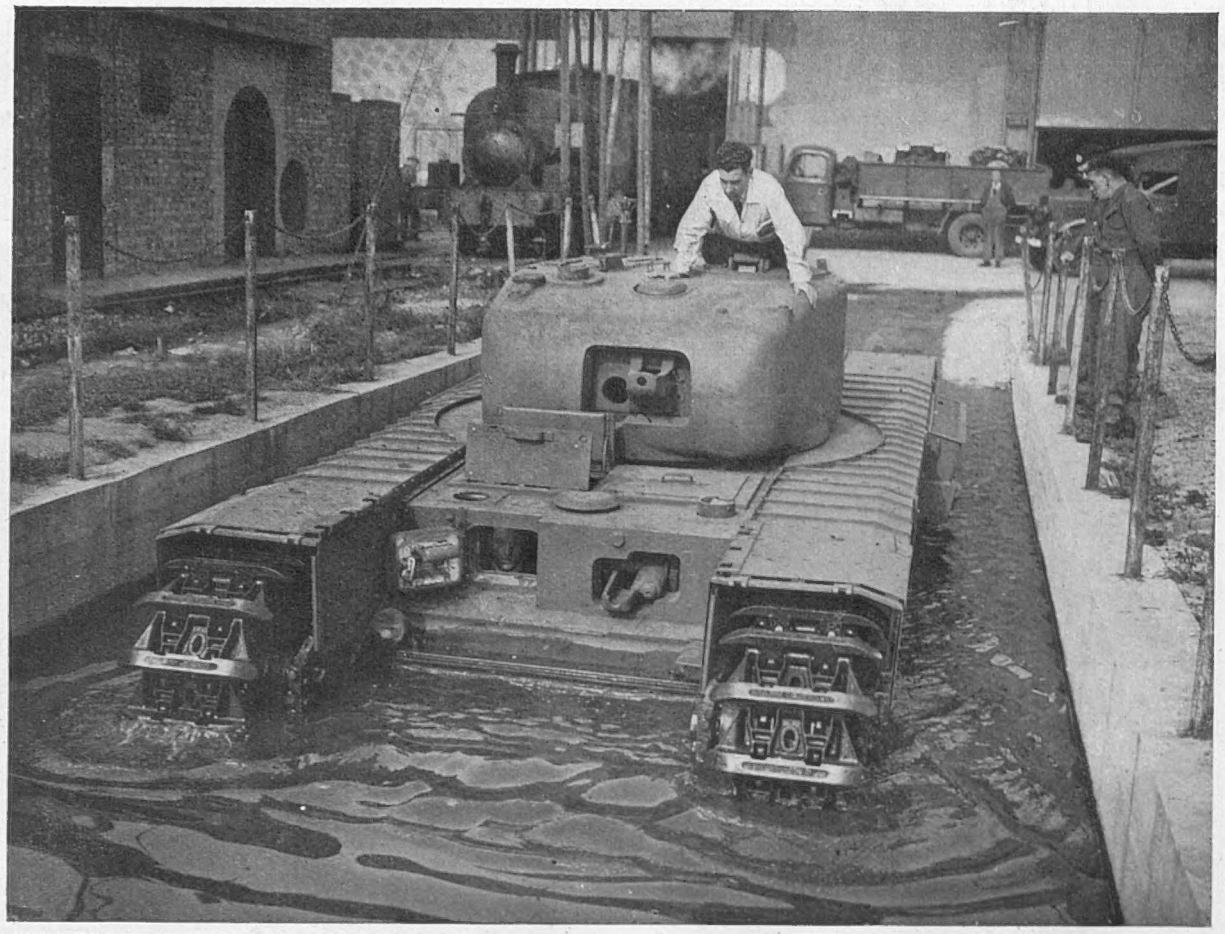
# A WAR NEWSLETTER —No. 216

1, NEW OXFORD STREET, W.C.1.

**Co-belligerent.**—The different status of the growing band of nations which will have had their share in bringing Nazism to total liquidation is becoming very confusing. It is time for an International Heralds' Office to concern itself with a *Table of Precedence* for use at the Conference Table-to-be. We have the Great Power (continuous). The Great Powers (part-time). The Great Power Original, defeated and returned to the fray. The lesser Powers, original and enslaved, but continuous underground. The Great Power, once active enemy, now "co-belligerent." The strict (but benevolent) neutral. The strict (but not quite so openly benevolent) neutrals. And, I dare say, that does not cover the whole elaborate permutation of grades and status in being or soon to be. Meanwhile, the position of Italy is a very curious one. Axis Enemy No. 2 has declared war on Axis Enemy No. 1 by the mouth and mouthpiece of the King of Italy (no longer Emperor), while somewhere in Italian territory a Republican Fascist regime under Benito Mussolini issues whispered orders and platitudes through a very shadowy shadow cabinet, under Nazi control. The Germans declare that Italy as a declared ally will be no heavier a liability than Italy as a declared enemy—and they have perhaps some justification both for the taunt and for the consolation. Necessity makes strange bedfellows. Only courage, resolution, a new spirit in her people, can redeem the past and justify the experiment.

**Hope—and Statistics.**—Into Everyman's ears is daily drummed the extent of the hammering which Germany is now receiving—and, indeed, the evidence is convincing enough. Battered cities, burnt-out storage tanks and war factories; daily tolls on three fronts of tanks and planes in hundreds and soldiers in thousands; on the seas and under them, tonnage sunk in thousands. And every day clear evidence of a loosening grip on the filched territories of Europe and a constant reduction in reserves and supplies of utterly essential commodities of war, oils, metals, foodstuffs. How long, we ask with reason, can the Germans stand this hammering? How long could *we* have stood it in 1940 on this present scale? If in the African-Italian campaigns "6,000 Axis aircraft were lost in less than a year," how long can an "available fighting strength of 2,000 aircraft," attributed to one vast section of the Nazi front to-day, stand a racket of wastage on such lines? Or, if, in the course of two consecutive days, over 300 Nazi fighters bit the dust (as reported), how long can the nation which was compelled (under more favourable conditions of production and when its enemies were hardly at the beginning of plane production) to call off the Battle of Britain, because it could not stand the then rate of wastage—how long to-day can it stand a wastage far higher, against an enemy ten times stronger. One might argue: "*Not longer than a matter of months.*"

**More Layman's Puzzles.**—During this great Russian offensive, sometimes for days on end and for weeks on end, daily estimates of losses inflicted on the enemy in tanks and planes have been given out officially. Anyone who may have noted down these daily figures, and subsequently added them up to monthly totals or quarterly totals, will have found that they represent a total annual rate of wastage of about 12,000 planes a year and about 6,000 tanks a year—on the Russian front alone. So, too, with the figures of Nazi fighter planes destroyed during American day and British day-and-night sorties over Germany and over the Mediterranean fronts—the monthly or quarterly totals, if added up, produce a ratio of wastage which makes a nonsense of the pundits' estimates of what Germany possesses in this arm in front-line strength, in reserves and in production capacity. Either the first estimates are too high or the latter too low. I assume, in my muddled condition, that the latter figures are couched too low. Hence it is that, unless we are to assume that the war is virtually over (which we are at present reluctant to do, having regard to much sombre evidence to the contrary), we must assume that the pundits' statistical estimates are couched far too low. It is all very puzzling to the layman, who daily draws nearer to the conclusion that Pundits and Experts and Statistical Wizards of all kinds are (like himself) of common clay and liable to error.



**THE "IMMERSION TEST" FOR CHURCHILL TANKS, which every new specimen has to undergo as it comes from the factory**

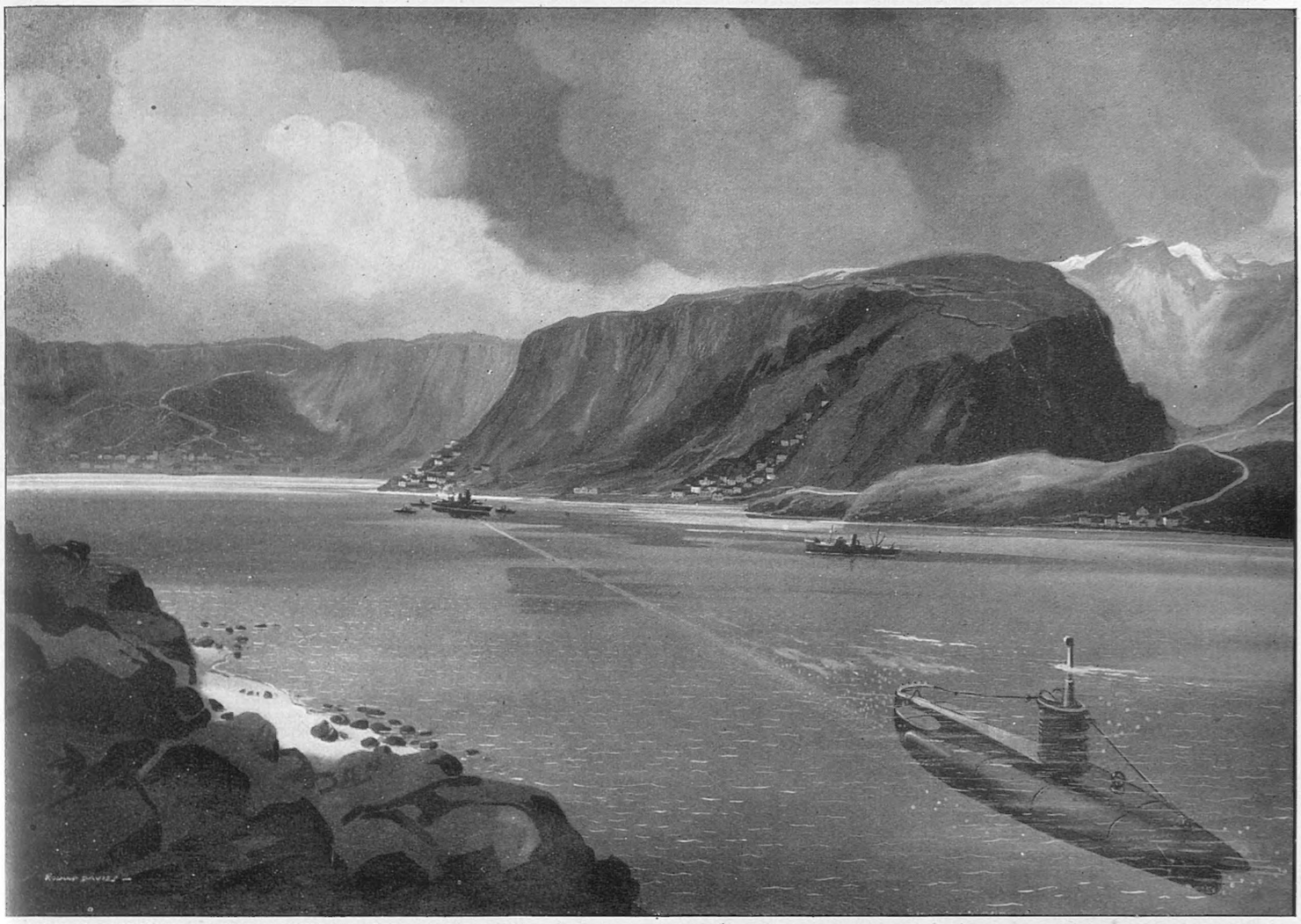
This photograph shows, for the first time, the manner in which all our fighting vehicles are tested before delivery to the Army: it was taken in a former motor-car factory which is now working for the Ministry of Supply. The tank proceeds under its own power down a slipway into a concrete bath, where the lower part of the hull remains for half an hour under water. If it is to pass the test, during this period no water must have penetrated the driving, fighting or engine compartments

**What the Public Thinks.**—We don't run to Gallup polls in this country. Such devices for ascertaining public opinion by cross-sectioning all classes and creeds must be of great service to American journalists. For the least responsible of them must regard such up-to-date knowledge as a vital part of his stock-in-trade. To go out and talk to all sorts and conditions of men and women in every branch of the war effort and all over the country is no doubt the British journalist's best means of securing this information. But war austerity to-day utterly restricts his movements and renders that line abortive. Myself, I find that the next best thing available is to clutter myself up on Sunday mornings with popular Sunday newspapers, and read through, as a grim duty, their snappy, forcible articles—exchange marts of opinion—their terse "leaders," and even their "astrologer" columns. These Sunday Pops, by the way, strike me far more favourably than they did in pre-war days. So many unwholesome luxuries and follies have been cut out of social life by war austerity that these popular journals traffic less and less in frippery and flippancy, and concern themselves far more with the things that really matter to ordinary men and women, and with the trends of popular opinion which is sincerely based, if not always based, on full knowledge. A recent course of such Sunday reading leads me to the conclusion that there is definitely awakening in the country a reaction towards criticism of the present Government on many counts, but least of it on counts covering the strategical conduct of the war.

**A Clear Reaction.**—One gets the idea that this popular reaction to fierce individualism has caught the Government unprepared and that a new and altogether more tactful approach to the public is already overdue. New fetters which the needs of war require should now be served out with velvet padding. The public wants to know whether and how its often extolled deserts are going to be rewarded. In short, a great deal more tact is needed and a new approach, if still more regimentation is to be successfully applied. I do not take very seriously public criticism of major strategy—soi-disant "Second-Front" talk is neither seriously put out nor needs to be seriously listened to. But the British public has undoubtedly gained the impression, caught from Russian opinion or propaganda, that still more tremendous military exertions applied at once, and still more tremendous risks taken now, might well shorten the war and cut the irretrievable losses to civilisation which every extra day of war now entails and multiplies. This growing opinion brings right into the practical politics of the hour all measures which the Government may take, or plan to take, to implement its guarantees for a better world and social justice after the war. And so it is that the Beveridge Report, clearly designed and sincerely designed as a pledge, a proof and a stimulus, has become a major embarrassment in the path of the Government's authority at a time when the crisis of war is still acute. I do not suppose that a "Gallup" poll of the whole nation would yield a majority opinion that this or any Government ought to cash the blank cheque of the Beveridge Report without the slightest effort to ascertain what funds were available to meet it. We are not children nor half-wits. But the fact remains that the Government's handling of the Beveridge and other earlier Reports in the same field of "social justice" is leading the public to the view that the present Government is not sincere in its determination to implement the social justice it guaranteed at the height of our danger.

**The First Essentials for Winning the Peace.**—That our Government is, and must be, fully occupied with the conduct of a very critical phase of the war is a 100 per cent. excuse not to-day nearly 100 per cent. accepted as such. The argument that "if money can be poured out like water for engines of war, there is an inexhaustible supply of it," or, at the lowest estimate, "a tithe of that expenditure after the war could ensure security and prosperity and equality for all," is no new argument. It is as old as war, and has always been the impetus of revolt and squandermania and the stock-in-trade of demogogues in every post-war period. There are clear indications to-day that public opinion is deeply suspicious of Government inaction in implementing this social ideal of Beveridge's and grows constantly more irritated by injustices, apparent and real, in all branches of pensions practice, and is ever ready to press for increases in the pay of the Forces and industrial workers without reference to economic possibilities or to social and economic consequences. Oddly enough, what strikes *me* as the gravest handicap to national preparation for winning the peace does not yet appear greatly to worry or irritate the public. As I see it, the first essential to that state of preparedness is to have in being a Parliament truly representative of the nation as it is, and will be. If our present Parliament represents anything, it represents either Mr. Churchill, or, alternatively, the shattered political shibboleths of an era which can never return. That is a state of affairs which bristles with dangers. The first essentials for winning the peace are: first, a representative Parliament; and, second, a general acceptance of the truth that war eats up a nation's wealth and is by no means a proof of its inexhaustibility.

THE OLD STAGER



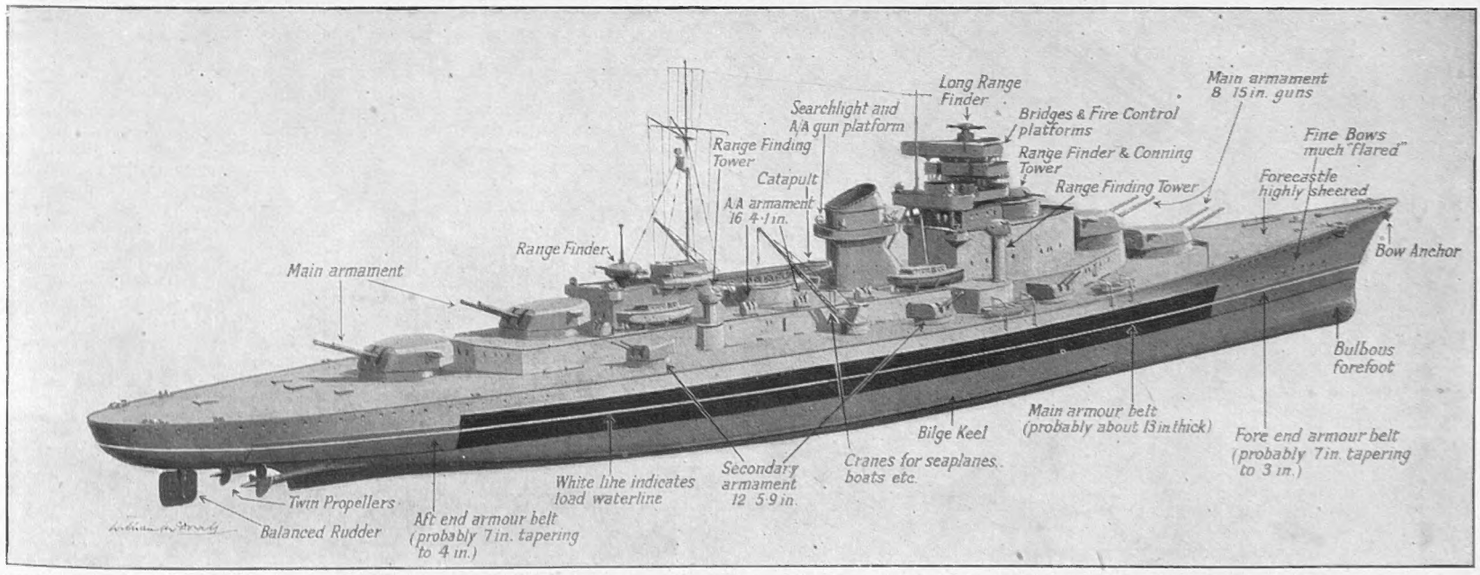
**A RECONSTRUCTION OF THE SCENE IN THE ALTEN FIORD AS ONE OF THE BRITISH MIDGET SUBMARINES LAUNCHED ITS TORPEDOES AT THE GREAT GERMAN BATTLESHIP "TIRPITZ." This drawing is an attempt by a "Sphere" artist to re-create the incident: the position of the battleship at her anchorage, and the nature of the surrounding country in the fiord, are accurate; but the Admiralty have not yet issued details of the tiny new submarines which participated. The vessel in this drawing is, therefore, strictly an artist's impression of its external appearance**—*Drawing by Roland Davies*

# The German Battleship "TIRPITZ" and the British MIDGET SUBMARINES

A Special Section Dealing with the Action at Alten Fiord, in Northern Norway, on September 22

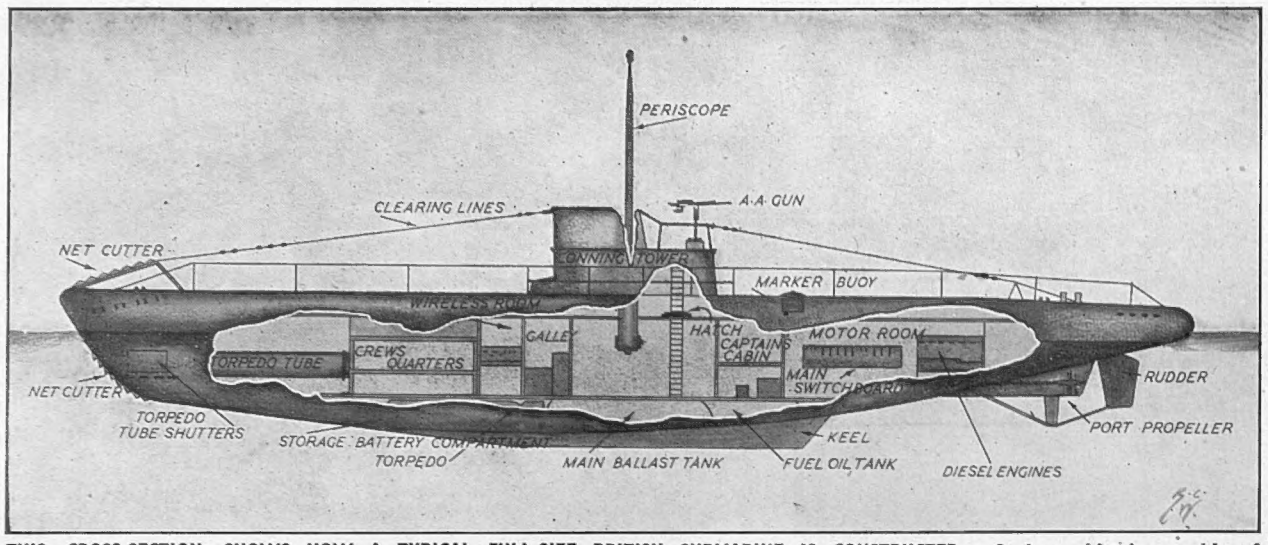
*—With a Series of Special Drawings and Diagrams*

In the pages which follow, in describing the midget submarines which played so large a part in the attack on the German battleship *Tirpitz*, it must be emphasised that the Admiralty have not yet published a complete description of this new and exciting type of miniature warship. Therefore the representations by our artists contained here must not be regarded as authoritative: although based on reasonable assumption, they nevertheless represent the artists' own ideas of how such craft may have been constructed. The drawing below shows the main features of the *Tirpitz*: above is the Alten Fiord, in which she was anchored at the time of the attack, with one of the British midgets in the act of launching her torpedoes. The Alten Fiord lies 1,000 miles from the nearest British base, in the most northerly section of the Norwegian coast, where it turns eastward towards Murmansk and Russia. The fiord digs deep into the rocky mass of the mainland: it is reached by traversing several channels for a distance of 50 miles from the outer edge of the seaward islands. The *Tirpitz* actually lay in the Kaa Fiord, a small arm of the Alten, and the portion which is furthest from the outer sea. She lay near the cliffs of Akkosalki, a rock mass rising up 3,100 ft. In the official pictures given on the following pages, a landing-place appears a little to her left, connecting with a roadway leading inland. Various buildings are seen climbing up a gully behind the battleship and on the southern flanks of the Akkosalki. Numerous buildings and retaining walls are visible beyond the *Tirpitz*, suggesting a station of some kind




**THIS IS THE "TIRPITZ," BIGGEST AND NEWEST OF ALL GERMAN BATTLESHIPS. She was launched on April 1, 1939 and completed in 1941: in gun-power she is roughly comparable to our own battleship "Malaya," but the latter has 5 knots less speed**—*Drawing by Wm. McDowell*

The *Tirpitz* has a displacement of about 40,000 tons: her length is 791 ft. on the water-line, and her beam is 118 ft. The eight 15-in. guns are arranged in four turrets as indicated above: she also has twelve 5·9-in., sixteen 4·1-in., and many smaller guns. Four aircraft are carried on board, and are launched from two catapults. Her speed is 30 knots. The armour with which she is protected has never been disclosed, but it is certainly equal to that of contemporary battleships of other navies, and probably it amounts to close on 16,000 tons in weight: the vessel is also reported to be unusually sub compartmented against damage by torpedo. The heavy black bands in the above drawing indicate the position of her armour-plating

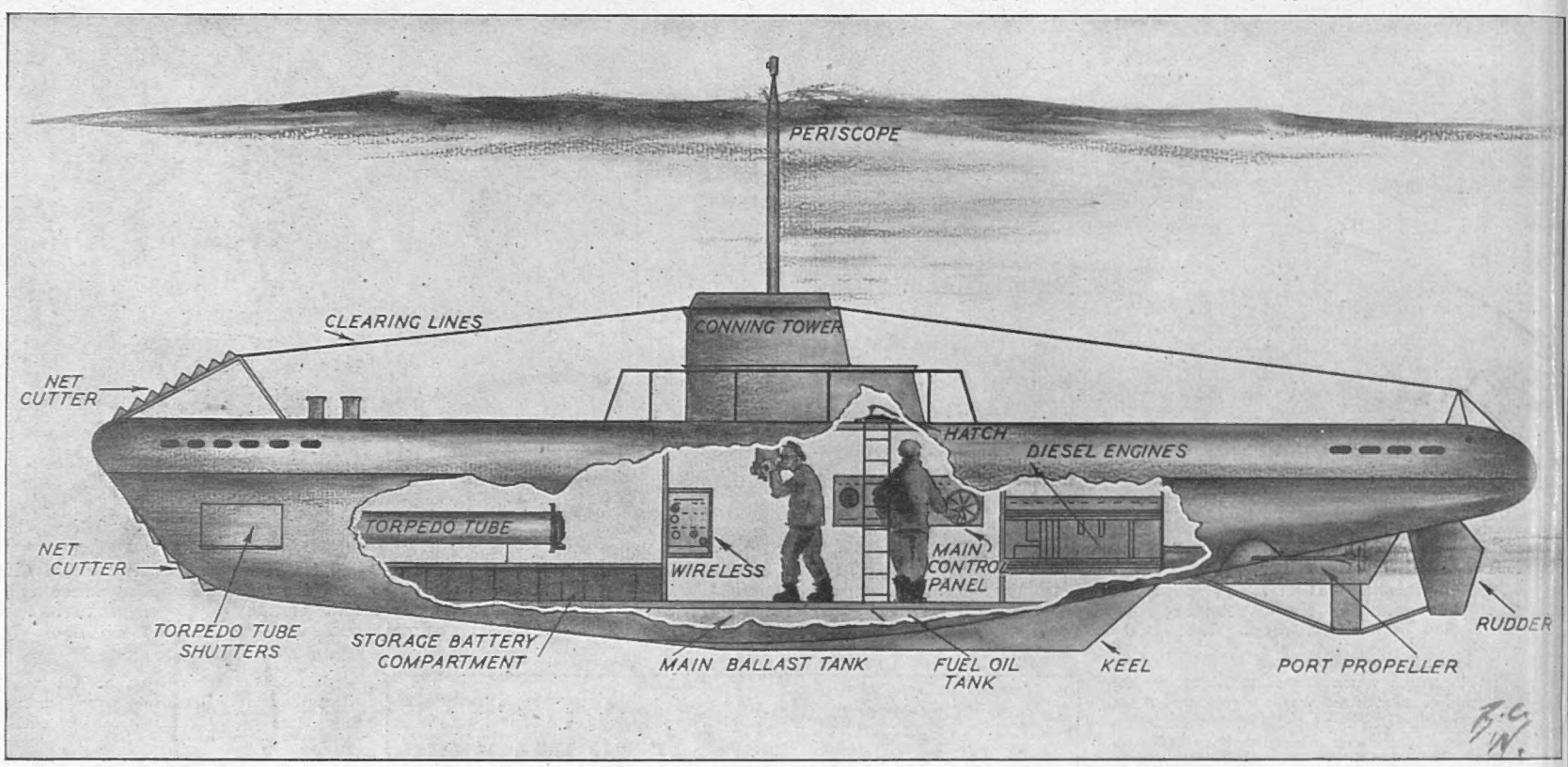



**THIS CROSS-SECTION SHOWS HOW A TYPICAL FULL-SIZE BRITISH SUBMARINE IS CONSTRUCTED. Such a ship is capable of long cruises, unlike the "midgets," which have only the immediate operation to consider**—*Drawing by B. C. Wood*

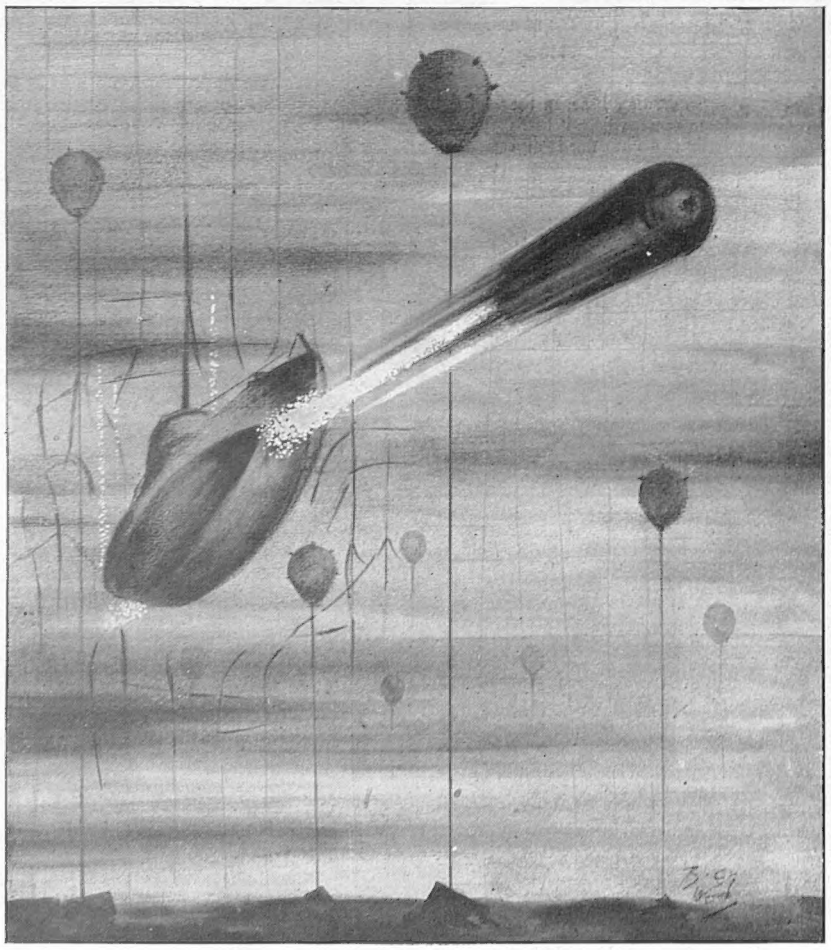
# THE MIDGET SUBMARINES AND THEIR PROBABLE CONSTRUCTION

*With Official Admiralty Photographs Taken After the Attack on the "Tirpitz"*

Two of the three drawings given on this page are a *Sphere* artist's own impression of the probable design and structure of the new midget submarines, whose existence was only made public after the successful attack on the *Tirpitz* in the Alten Fiord. These pictures show the interior arrangement of the "midget," and depict it in action after breaking through an anti-submarine net in an enemy minefield such as might have been placed around the German battleship. It must again be stressed that these pictures are not from official material, as the Admiralty have not released any details of the new type vessel.




**THIS IS A "SPHERE" ARTIST'S CONCEPTION OF WHAT ONE OF THE "MIDGETS" MIGHT LOOK LIKE. Everything within the hull has been reduced to the bare essentials, with a crew (according to Colonel Knox, Secretary of the U.S. Navy) consisting of two men**—*Drawing by B. C. Wood*

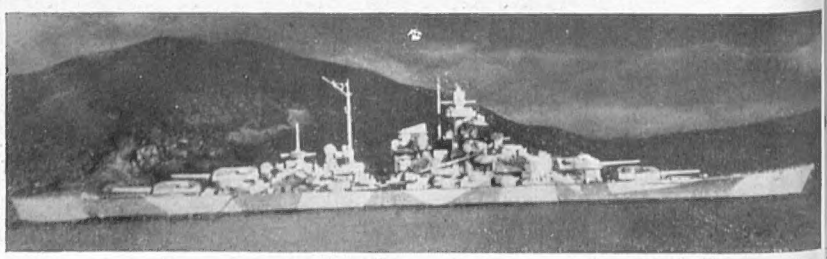


*On left*—**THE TORPEDO SPEEDS TOWARDS ITS TARGET: An impression by B. C. Wood of a British midget submarine penetrating the minefield and the torpedo-netting surrounding the "Tirpitz" and letting fly at the target with one of her two torpedoes**

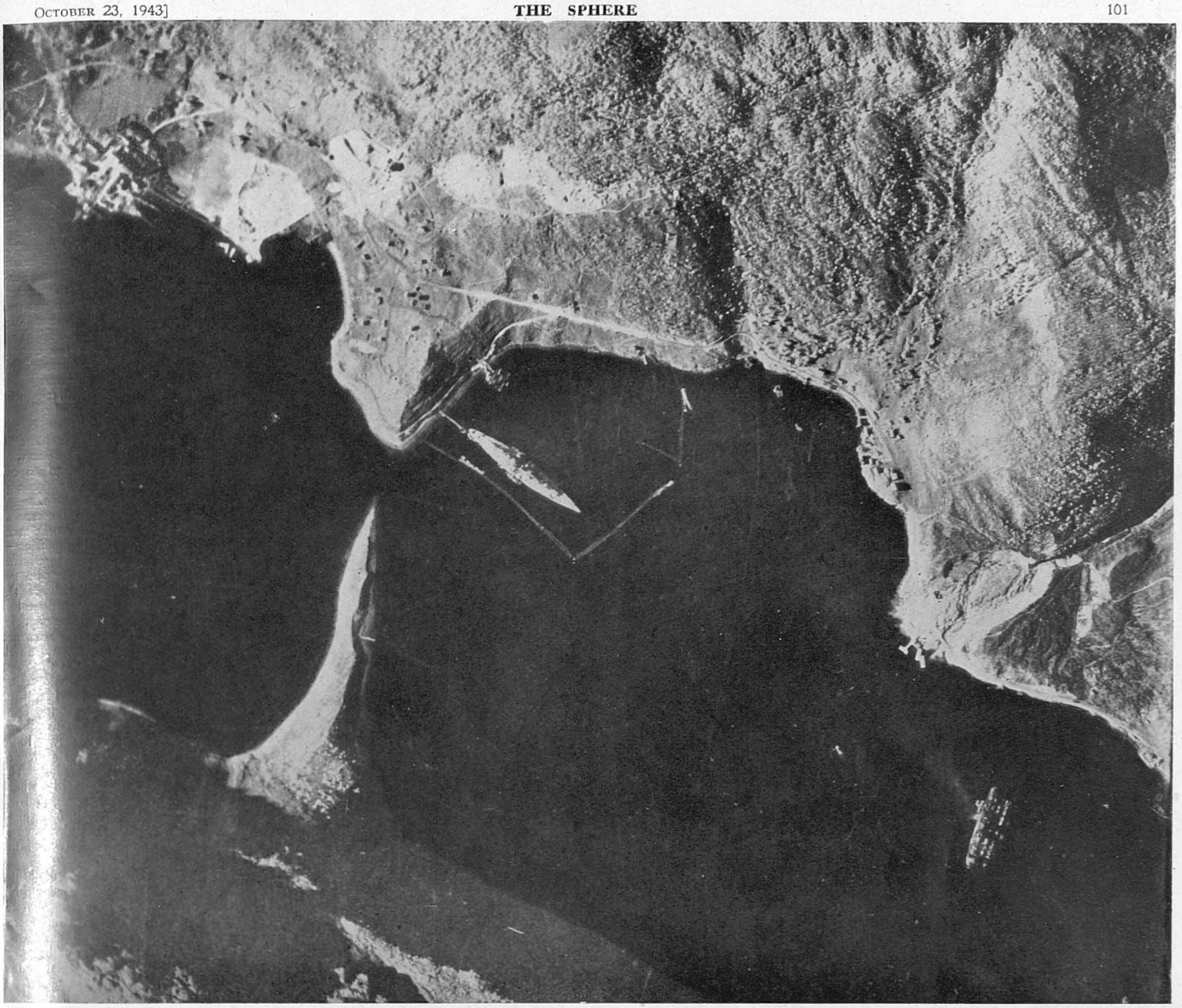
The upper drawing shows the arrangement of a typical full-size submarine, and details the space allowance for a host of apparatus not necessary in a "midget." The larger drawing shows Mr. Wood's conception of the type of vessel which took part at the Alten Fiord action: it incorporates all the essential components which would be necessary for such an undertaking—i.e., a motor-room, storage batteries, main ballast tanks, net cutter and clearing lines, periscope, conning-tower, etc.

While the Commander is at the periscope, his companion is assumed to be at the main control panel; from here he can not only control the movements of the submarine itself, but also discharge the torpedoes, two of which would be carried in the tubes in the bows. No extra torpedoes would be carried, as it would be impossible for the two men to reload the tubes, not only because of the weight of the torpedoes themselves, but also because they would be fully occupied in operating their vessel. It has been assumed that if the commander chooses to discharge his torpedoes separately, certain adjustments of trim must be made to counter the loss of balance.

The main principles of construction would follow very closely those of a small submarine, but without any of the inessential accessories and compartments. There would, for instance, be no "crew's quarters" or galley, since the two men would only be in the submarine for a comparatively short period, as they would be operating from a parent ship. It will be noticed that two propellers are fitted to the vessel, thus enabling an emergency method of steering to be available by the individual operation of each propeller in turn should the rudder become damaged by depth-charges or other form of enemy retaliation.



**THE GERMAN BATTLESHIP "TIRPITZ" IN HER WARTIME CAMOUFLAGE, in a hide-out in one of the many narrow Norwegian fiords. Note the anti-torpedo-nets which stretch along the whole length of her water-line**



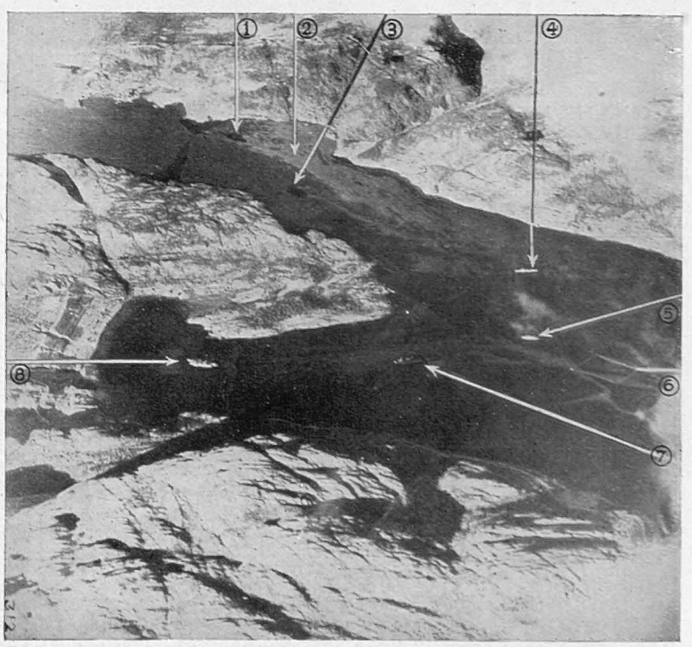
THE GERMAN BATTLESHIP "TIRPITZ" LYING IN HER PROTECTED ANCHORAGE AT ALTEN FIORD—a picture taken by an aircraft of Coastal Command. The vessel is surrounded by protective netting, and lies off a high spur within a sheltered bay. (The latter is shown in detail on page 99)

**WHERE THE ATTACK TOOK PLACE: The position of the German battleship in the Kaa Fiord, the remotest arm of the Alten Fiord.** The latter lies about 100 miles south-west of North Cape, and is more than 200 miles within the Arctic Circle. One deep-water channel, Stjern Sound, leads to the Alten Fiord from the Arctic Ocean, Rogn Sound and Varg Sound: the depth of water at these points varies between 21 and 198 fathoms. The extreme southerly arm leading from Alten Fiord is Kaa Fiord; entry to the position in which the *Tirpitz* was lying is through a channel less than a mile wide. The depth in this area is in places little more than 20 fathoms

The attack on the *Tirpitz* in the Alten Fiord was made on September 22. Two days later the German official communiqué announced that an attack on the battleship by "submarines of the smallest type" had been repulsed and that prisoners had been taken. Interrogation of the crews which took part in the exploit and subsequent photographic reconnaissance leave no doubt, however, despite enemy claims to the contrary, that the attack did meet with success.

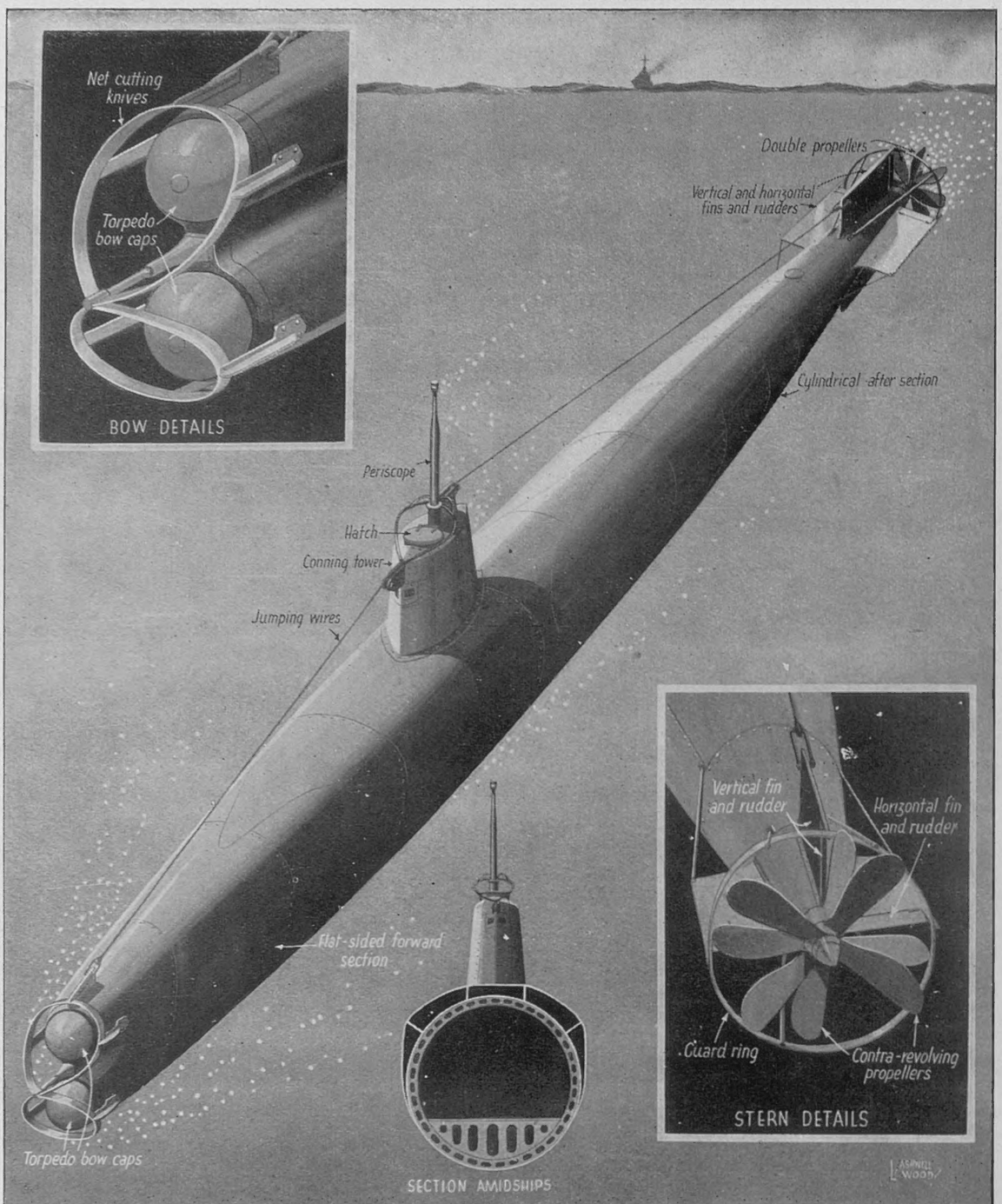
Air photographs show the *Tirpitz*, which has not moved from her anchorage, surrounded by thick oil which covered the fiord where she lay and extended over a distance of more than 2 miles from her berth. The photographs also show a number of small unidentified craft alongside the battleship, possibly repair ships or ships to provide power and light.

To give some idea of the magnitude and difficulties of this remarkable achievement, it must be remembered that Alten Fiord, in which the *Tirpitz* lay, was 1,000 miles from the nearest British base. The midget submarines were set the task of penetrating the highly defended base where the enemy ships had thought themselves safe. They had to pass through the mine-fields guarding the approaches to the anchorage, and after negotiating the intricate fiords, always vigilantly patrolled by the enemy, they had to carry out an attack in the strongly protected and confined waters where the ships were moored. Finally, to regain their base, the same obstacles had to be overcome




**THIS PICTURE WAS TAKEN SIX DAYS AFTER THE SUCCESSFUL ATTACK BY BRITISH MIDGET SUBMARINES: It shows the following points in detail—**

**(1) The damaged battleship with a number of small unidentified craft alongside**
**(2) Thick oil is still covering the vicinity of the "Tirpitz's" anchorage and extends for a distance of more than two miles from the berth**
**(3) Destroyer depot-ship**
**(4) Destroyer**
**(5) Coastal-defence vessel**
**(6) Net-cage for protection of warships at anchor**
**(7) Tanker**
**(8) Tanker with a destroyer alongside**




**A COMPLETE AND AUTHORITATIVE RECONSTRUCTION OF THE TWO-MAN SUBMARINES OF THE JAPANESE NAVY which took part in the disastrous attack on the American Fleet at Pearl Harbour on December 7, 1941. This drawing by Mr. L. Ashwell Wood was published in "The Sphere" in its issue of February 28, 1942: it was made from material which became available after one of this type had been discovered cast up on the shore at Hawaii after the attack on the U.S. Navy. Later, on May 31, 1942, three similar tiny Jap submarines entered Sydney Harbour and attempted to carry out an attack on Australian shipping: all of them were destroyed—two by depth-charges and one by gunfire**

# MIDGET SUBMARINES
## of the Japanese and Italian Navies

*As Used at Pearl Harbour, in Sydney Harbour, and Against Gibraltar*

It will be remembered that, when the Japs launched their treacherous attack on the U.S. Fleet at Pearl Harbour on December 7, 1941, a number of two-man submarines participated in the assault. It had been known for some years before the war that the Japanese had been experimenting with midget submarines. According to reports, they were put into mass production and cost little more than a good-class motor-car to build! This theory was confirmed after the capture of one of the "pocket submarines" by the U.S. Navy at Pearl Harbour.

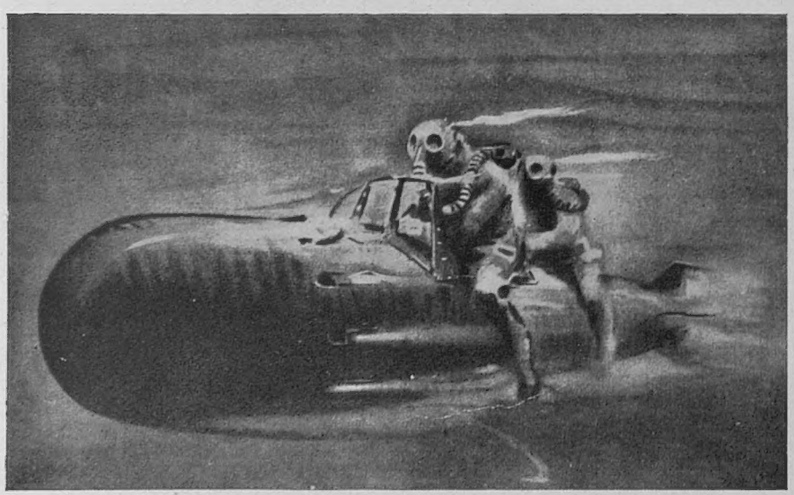
The vessel is equipped with two tubes in the bow: neither of these had been fired when this particular specimen ran aground. In front of the tubes, the submarine also had a knife-like apparatus with which it was evidently planned to cut through the net—had it been lowered: it may be that this apparatus was also intended to protect the two torpedoes, the caps of which protrude at the bow. At the stern there were two sets of propellers—contra-revolving, and protected by a guard ring as indicated in the drawing on the left. Although the actual hull of the vessel is cylindrical, a superstructure had been erected above this for some purpose, and lent a slightly top-heavy appearance to the whole vessel. One feature well brought out in the drawing is the great length and slimness of the whole craft.

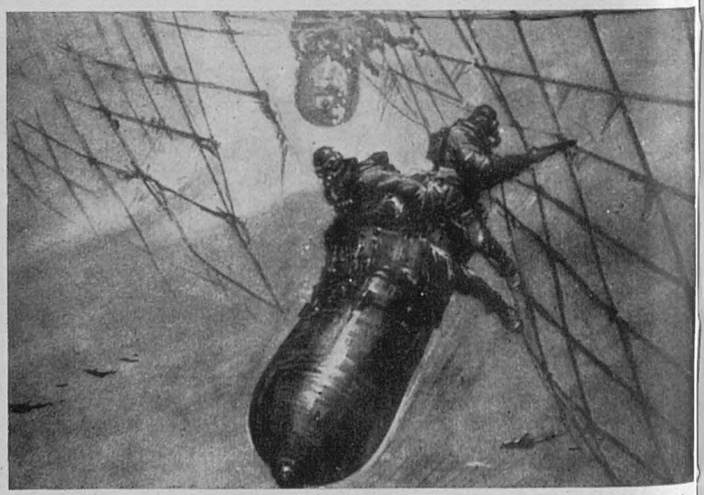
The vessel captured at Pearl Harbour was 41 ft. long and divided into five compartments, as shown in the detailed drawing on the right. It carried two 18-in. torpedoes and was manned by a crew of two only—an officer and one rating. The plating of the vessel was stated to be a quarter of an inch in thickness, and the small conning-tower was 4 ft. 6 in. high. Batteries for the electric drive when submerged were carried in two of the compartments.

The speed of the vessel was 24 knots, and the "midget" was presumably carried on the deck of a larger vessel and launched over the side at the appropriate moment. As it had a cruising range of 200 miles, it would be launched from a point 100 miles away if a real "suicide attempt" was to be made.

In addition to the two 18-in. torpedoes, a 300-lb. charge of high explosive was carried under the stern, wired to a battery so that it could be used either as a demolition charge for the submarine itself or against ships—whereupon the whole lot would be blown sky-high Hari-kari with a vengeance!

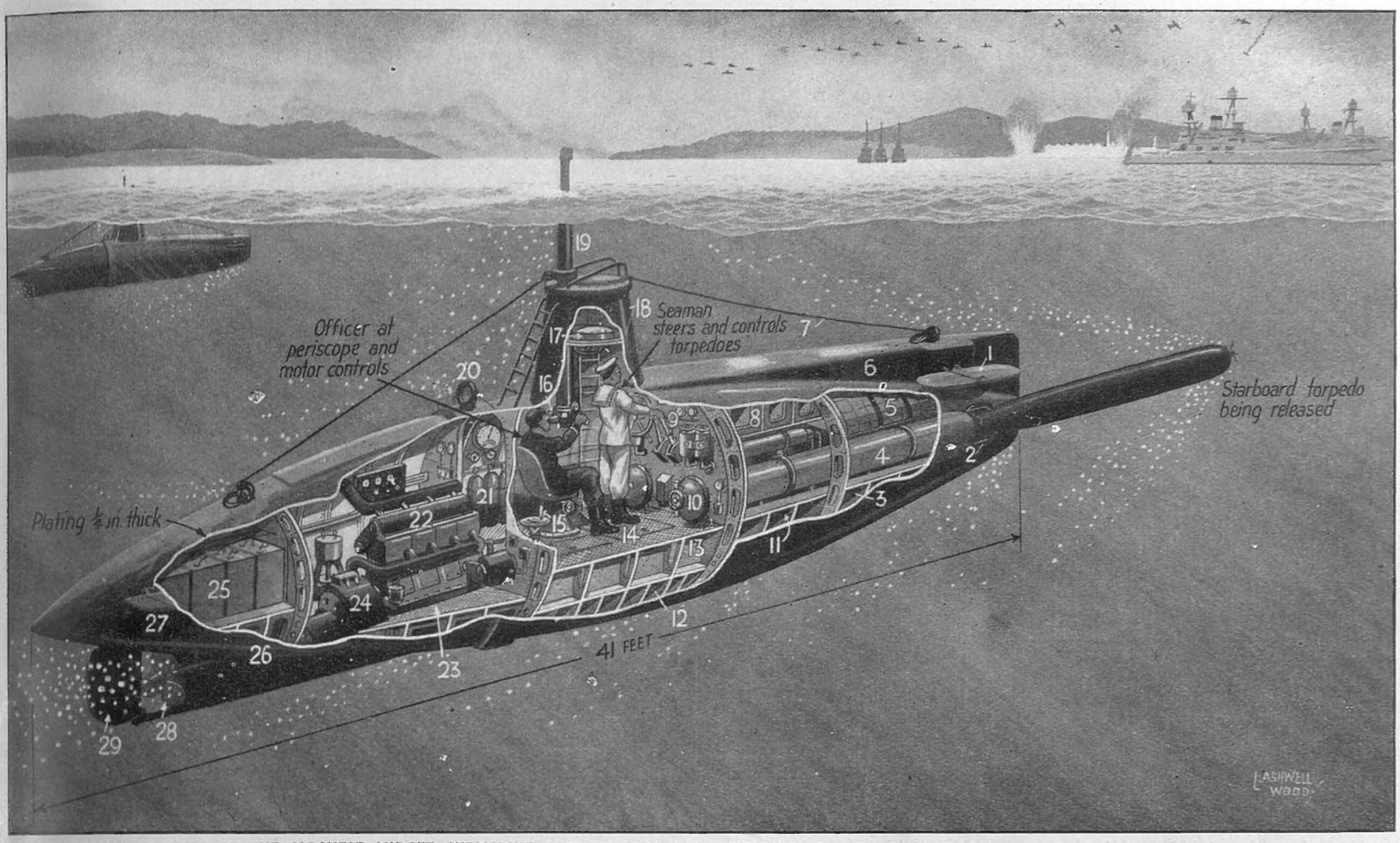
Later, towards the end of May 1942, the Japs made an attempt on Australian shipping in Sydney Harbour with a number of similar midget vessels. These met with complete failure. Since then but little has been heard of the Jap two-man submarines.





**THE TWO-MAN TORPEDOES OF THE ITALIAN NAVY—an adaptation of the midget submarine idea which the Italians claimed was put into practice by them in September 1942 against British vessels in the harbour at Gibraltar**

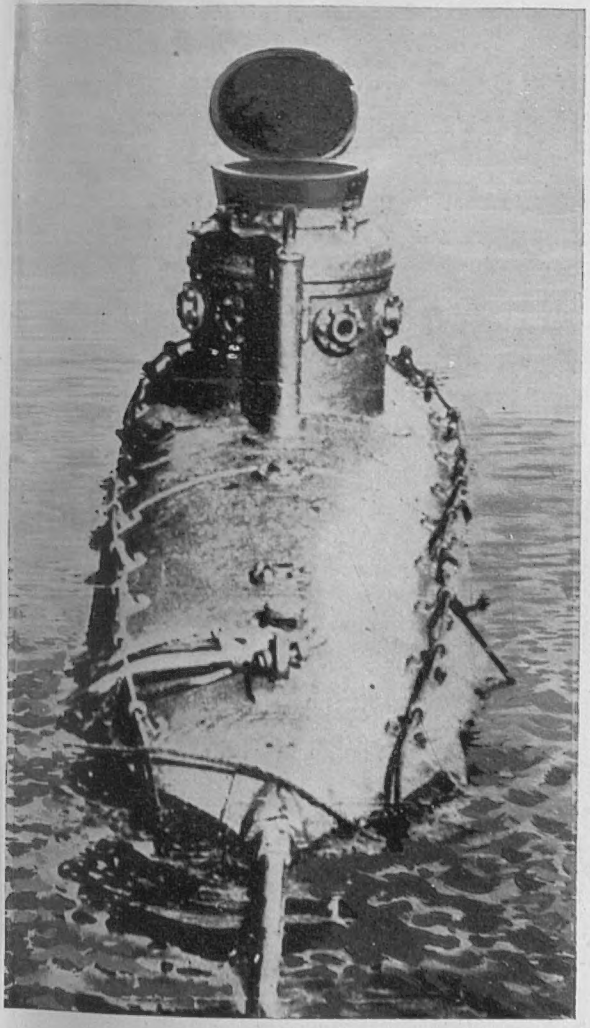
The two drawings reproduced here were both published in previous issues of *The Sphere*—that on the left on July 3, 1943, and that on the right on July 24, 1943. Before the fall of Mussolini the Italian Press was filled with talk of "secret weapons": the two-man torpedo was one of them. According to information from Italy itself, this torpedo, manned by two seaman in diving dress, was successfully used in an attack on Gibraltar by the Italian Navy in September 1942. In the course of this, these tandem torpedoes are supposed to have penetrated the torpedo netting surrounding the British fortress and cut the nets under water to allow the passage of Italian submarines. No mention was then made of how the torpedo is launched or what happens to the divers after they have steered the torpedo towards its target. Later it was stated that the two men jump off the missile and swim to safety just before hitting the target: alternatively, they take the contraption right up to the vessel under attack, clamber off and then attach bombs to the keel; the latter are presumably detonated at the right moment by electrical contact. Unlike the midget submarine, which has a range of some 200 miles, these two-man torpedoes have a much more limited range of only 15 miles



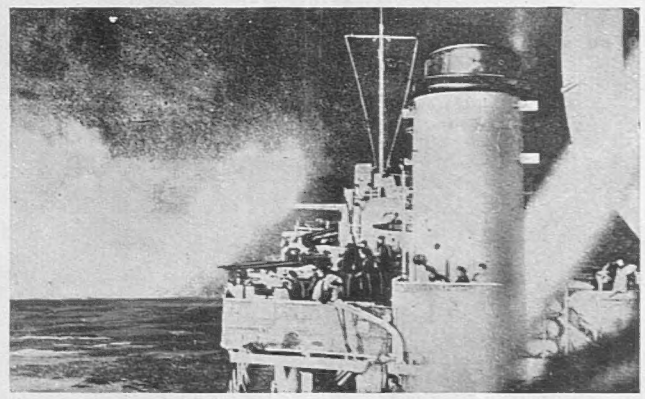

**CONSTRUCTIONAL DETAILS OF THE JAPANESE MIDGET SUBMARINE CAPTURED BY THE AMERICANS after the Pearl Harbour attack. With these two-man craft the Japs entered the harbour and took the U.S. Fleet by surprise. In 1942, similar craft were used at Sydney** (see key below)—*Drawing by L. Ashwell Wood*

This drawing was first published in *The Sphere* in its issue of December 27, 1941, three weeks after the treacherous attack which forced the United States into the war against the Axis. Here is a complete key to the details incorporated in the drawing: **1**—Forward starboard hydroplane; **2**—Torpedo door bow cap; **3**—Forward trim tank; **4**—Starboard torpedo-tube; **5**—300-lb. charge of high explosive; **6**—Submarine superstructure; **7**—Jumping wire for clearing obstructions; **8**—Fuel tanks in forward part of vessel; **9**—Torpedo release gear below the conning-tower; **10**—Torpedo loading doors; **11**—Ballast tanks to control diving and buoyancy; **12**—Compensating tanks, for trimming vessel; **13**—Batteries for driving submarine below the surface; **14**—Control compartment in which the crew of two are accommodated; **15**—Remote motor control; **16**—Periscope eye-piece, with Commander seated below; **17**—Lower hatch; **18**—Conning-tower; **19**—Periscope; **20**—Ring bolt for hoisting the craft on to its mother ship; **21**—Compressed-air bottle; **22**—100-h.p. Diesel engine for driving vessel on surface; **23**—Motor compartment; **24**—Combination electric motor, and generator for charging the batteries in an emergency; **25**—Battery tank; **26**—Aft trimming tanks; **27**—Aft starboard hydroplanes; **28**—Single screw; **29**—Balanced rudder.

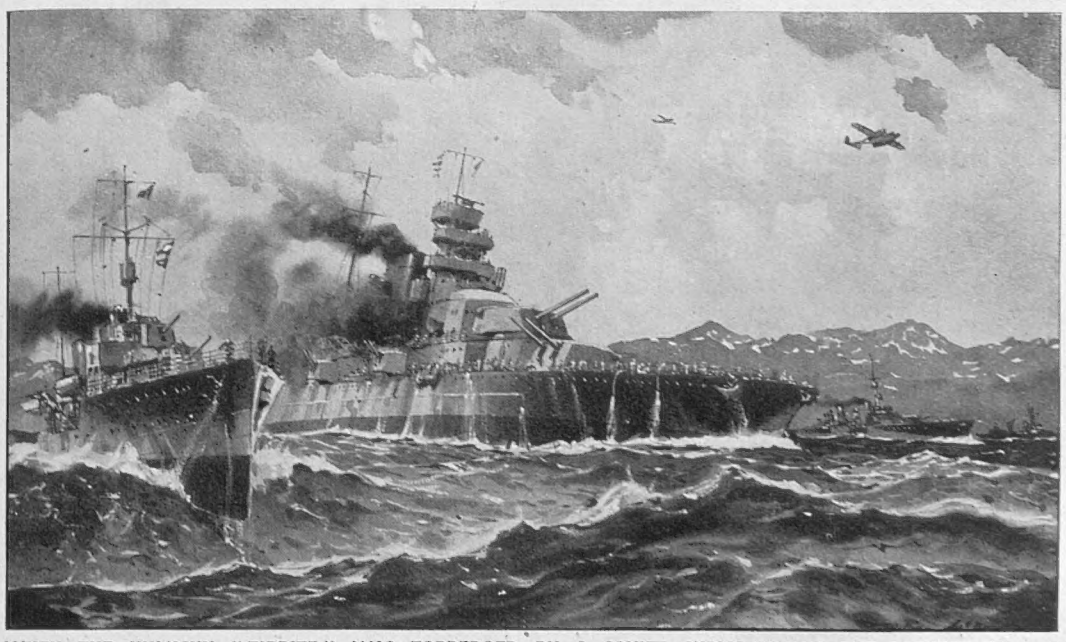
On May 31, 1942—six months after Pearl Harbour—vessels of this same type were used at Sydney, but all three were destroyed during the abortive attack on Australian shipping.



**ONE OF THE JAPANESE TWO-MAN SUBMARINES which took part in the Pearl Harbour attack. These vessels operate from a mother ship and have a 200-mile cruising range. Three of them were destroyed**



**THE LAST TRIP OF THE "TIRPITZ":** On September 8, the great battleship took part in the sortie of the German Navy to Spitzbergen, where a small Norwegian garrison was attacked. That was the last voyage of the *Tirpitz* before she was torpedoed by the midget submarines in the Alten Fiord on September 22



**WHEN THE UNLUCKY "TIRPITZ" WAS TORPEDOED BY A SOVIET SUBMARINE IN THE BARENTS SEA: A drawing published in "The Sphere" on August 1, 1942, showing the battleship limping home towards Trondheim at reduced speed with a strong escort of eleven warships as well as aircraft—** *Drawing by Wm. McDowell*

In the summer of last year, the *Tirpitz* was discovered by the Russians as she emerged from the Norwegian fiords into the Barents Sea, when a Soviet submarine launched a torpedo at her. Later, Soviet reconnaissance planes discovered the battleship steaming along the Norwegian coast northwards in the direction of the great German naval base at Trondheim. She was escorted by no fewer than eleven other warships, including the two pocket battleships *Admiral Scheer* and *Lutzow*, a heavy cruiser, and eight destroyers. On the left above is a Nazi destroyer keeping as close as safety allows and ready to take off the crew of the battleship should the torpedo damage suddenly extend. A main bulkhead may have been damaged, in which case a flooded compartment may put extra pressure on another which may collapse and so fill the hull to danger point

# HAS the "LUFTWAFFE" SHOT ITS BOMBING BOLT?

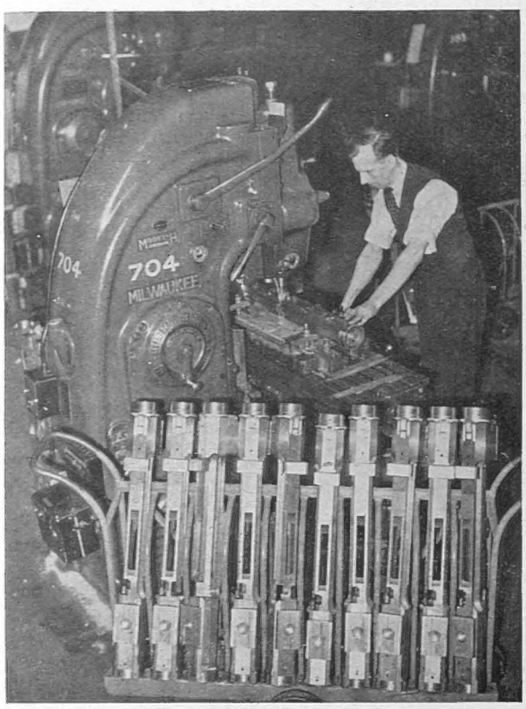
*One of the Great Problems of the Moment, in which the German Air Force of To-day is Closely Involved* By FERDINAND TUOHY

THE Hunter's Moon has begun to wane without Germany's bombers retaliating on a scale comparable even with the attacks on London of mid-October 1940. "Even" is, perhaps, hardly the word, since those attacks killed as many as 1,500 in one night. But the point is that, despite the immense distance bombing has travelled since 1940, the Germans have lately been dropping one-tenth—30 tons—of what they more than once dropped three autumns ago.

Now I know that the whole of this subject is marked "highly dangerous." That no sooner has one broached matters than, as likely as not, bombing restarts in a big way, causing people to complain, "I wish that fellow had kept quiet!" Yet the fact remains that all kinds of people are wondering whether Hitler has really shot his bolt in the bombing-of-Britain line, and that only the very superstitious have ground for shrinking from anything hazarded in print.

Exception made of the brief "Baedeker" raids of eighteen months ago, it is now thirty months since the real blitz died out over these islands, and, incidentally, I have sometimes wondered if the record *Luftwaffe* losses of May 10, 1941 (thirty-three bombers down round London), made things die sooner than was intended. However, for nearly half of these thirty months Germany has received hard-to-terrible punishment. And she has not given back in kind to her chastisers, the obvious inference being that she has not been able to do so. But what interests us more is the further inference drawn in competent circles that now she never will be able to do so.

"Don't you think," I inquired, "that you might wait through the winter, or at least until the New Year before being so sure?"




**THE MAKING OF AN OERLIKON: milling the ejector slots in the breech-casing on a vertical Miller machine. In the foreground is a rack of finished breech-casings**

"Our air intelligence is very hot," was the answer.

The case in support of the view that Hitler has simply run out of adequate bombing strength takes us back first of all to his attack on Russia. Ever since June 1941 by far the greater part of German bombing strength has had to be earmarked for the east, where losses have been consistently heavy in almost continuous battling; and the next biggest call was the Mediterranean. To-day, three-fifths of Germany's bombers are believed to be still tied to the Russian front, and so involved with ground fighting has the *Luftwaffe* grown to be that any substantial removal would jeopardise German Army morale.

The next landmark was the 1942 decision to switch preponderantly to fighter production. Evidently, the reckoning was that with sufficient fighters, the R.A.F. and the Americans (then but slightly represented and unproven at that) could be kept from making serious inroads on Germany while the *Wehrmacht* finished off Russia. After which, Germany's eastern bomber fleets would be turned against the British aircraft-carrier, and be steadily reinforced by increased bomber production.

This plan, like many another, was doomed by Stalingrad and after. Germany was unable to release bombers from the east for the west; has not yet been able to do so in any noteworthy measure; and, meanwhile, she has seen her fighters so extended by the British and American sky-allies that, so far from being in a position to switch back to bomber production, she has to give every ounce towards maintaining her fighter defences. For if these should crack, the Allies could clamber into an indeed roofless "fortress."

From which it follows that if the Allies can keep Germany concentrated on fighter replacements and reinforcements, the chances recede of Hitler being able to stage a big-scale bomber come-back. And this is just what is being engineered. A deadset is being made against German fighters. In the air, on the ground, in the factories and the assembly plants, and even between the two latter when aircraft and components are in transit. Each night that we are not bombed, we may thank those who are fighting the German fighters all ways. The afternoon Ventura or Mosquito raid on a landing-ground does it. The sweep that brings German fighters into the sky, occupies and uses them, when otherwise they would be ready to fly over here as fighter-bombers. The raids on individual factory-targets strewn up and down Germany crash into vital equipment. The attacks on transport hold up fighter essentials. The rear-gunners and their escorts, who bring down fighters over Berlin or Frankfurt, contribute their steady quota. And the "Forts" and Liberators report unapproached havoc among German fighters.

Even if the huge totals that are claimed were cut in half, the loss of German fighters to the Americans would still be relatively enormous. And that is only half the picture, since even greater losses are associated with the cascade raids on places like Bremen, Regensburg, Wiener-Neustadt, Dessau, Rostock, Marienburg, and other centres where is concentrated the overwhelming output of Messerschmitts, Focke-Wulfs, Heinkels and Junkers.

Parallel to these fighter losses at source and in defence of Germany must be counted the constant drain on fighters in Italy and the Mediterranean, besides Russia. Hitler must always be sure of adequate fighter cover for his ground forces. And at the same time he must keep a sizable reserve of fighters to throw in on new invasion fronts, as and where these should arise.

Even more so must absolute and continuous priority be given to fighters as the best weapons yet devised with which to ward off attack on the wavering German Home Front. By all accounts, reinforcements and replacements are predominantly earmarked for fighter commands grouped round Germany. And even so, they are already saying in America that, in view of all his commitments, Hitler will have run out of fighters by Christmas!

What is more sure is that the Germans themselves admit "off the record" a big drop in plane production, and that first-hand evidence shows that all forms of training are falling off: sure index of positive decline. Bomber crews have to be intensively trained to be of reliable value, and where, in all this rush for fighters, can Göring, Milch and company find the wherewithal to fit out and train big new bomber fleets to bomb Britain in succession to the experienced personnel of yore, which must have so largely evaporated?

So seem to run the outlines of the "Nevermore!" argument in respect of German capacity to put up real retaliatory bombing here.

The official view which is from time to time heard says that Hitler has a bomber force in reserve in the west capable of dealing quite heavy, but not sustained blows, at this country. If this be the case, then he has barely called upon it during the past six months, despite constant expectation on the part of millions of sorely-stricken German civilians.

These cannot be put off or hoodwinked indefinitely. They realise, as well as we do, that bombers need to be stored in quantity to cope with invasion, and that it may take a couple of years to realise a bomber programme of construction. Still they await heavy retaliation before their own lights are finally put out, which would appear to indicate during the next few months at farthest. Nor is this expectation dimmed, but the reverse, by inspired whisperings throughout Germany concerning secret devices which, linked to new counter-measures at home, are to be matched against the ever-mounting Allied onslaught.

A liquid air-bomb weighing a bagatelle and capable of blowing all Regent Street to smithereens; high-level bombing through the London fog; interference with our saving radiolocation; a gas spray that will send us all to sleep over the week-end; an armada of impregnable, death-dealing air ironclads and rocket-bombs are among the novelties being passed from lip to lip in Germany. And such tales are capped by rumours of a great bombing force being collected from divers sources in greatest secrecy, much of it already either hidden underground or wonderfully camouflaged on the surface. The Führer is only waiting to be in a position to withdraw sufficient bombers from a much shortened and stabilised Eastern Front, in order to turn the *Luftwaffe's* renowned mobility to account by letting the whole lot loose upon the hated isle. However we may rate the possibilities, something akin to the above appears to be what civilian Germany is pinning about its last hopes to, and the Nazi leaders are not such fools as to imagine that the tormented Home Front is likely to be fobbed off month after month with accounts of "terrible" raids on London when no more than 30 tons of bombs are, in fact, dropped. For truth is at last piercing the lie barrage in Germany.

**MAKING THE OERLIKON GUN, which is beating the Nazi raiders, in a model war factory in the Home Counties: a general view of men and women at work in the assembly shop.** The Oerlikon gun, that small, light quick-firer which spits out shells at the rate of 400 to 500 a minute and can be used like a hose-pipe against low-flying aircraft, is now being manufactured at a factory "somewhere in the Home Counties." Although the job is a complicated one—forty types of steel are used and there are hundreds of parts, many of which have to be finished with the utmost precision—more than 60 per cent. of the workers in this model war factory are women, many of them wives and mothers of men serving at sea

Anyway, I sought an opinion which I thought would be worth having, and this is what I was told: "Too many tabs are being kept on Germany for any 'rabbit-out-of-the-hat' business—and not only tabs which can be safely kept at this end by forming watertight deductions from systematically acquired data."

Another reading of the retaliation hold-up is at least worth giving, though I trust it will not provoke Hitler to another "Calm yourselves, we are coming!"

Hitler may be holding his hand to the extreme limit in order not to declare his weakness. This would be a risky game to play with his bitterly hit Germans, but, according to this view, the German leaders are reconciled to their never being able to influence the Allied onslaught by counter-attack, so they consider it shrewd war-waging to keep us guessing rather than stage a losing air offensive which, when it had fizzled out, would not only release copious defences here, but would be a final revelation of incapacity to the German people. Furthermore, such relative non-retaliation might (in the Nazi view) bring the unvengeful English to a readier peace-making mood, and acquire a certain degree of compassion in the world for ruined and destroyed Germany.

THE SCENE ALONG THE MARKHAM RIVER as hundreds of American paratroops were sown in the dense New Guinea jungle to close the Japs' back door to Lae. Some have landed, but others are still in the air on the way down. Note the very low-flying aircraft on the right of the picture; also the smoke-screen created by other aircraft to conceal the progress of the action from the Japs across the river

## How LAE was CAPTURED by PARATROOPS in NEW GUINEA

*Two very dramatic pictures from the Pacific War Area*

HERE IS A VIVID DEMONSTRATION of the various stages of a parachute descent. From right to left—the man closest to the plane has just jumped; his still-unopened parachute is clear of his body. The second soldier's 'chute has just opened, but is not yet fully inflated. The third is still swinging at an extreme angle from the initial shock of the parachute opening. The fourth paratrooper is floating to the ground. The fifth is preparing for his opening

Here is the dramatic story of the first use of paratroops in the Pacific, told in two exceptionally vivid action shots. It shows how American soldiers took part in the action around Lae, in New Guinea, which finally resulted in the ejection of the Japs from positions which they had held for many months. General Douglas MacArthur himself watched this scene from his own aircraft, which circled above the spot. The American paratroops jumped on this occasion from a lower altitude than ever before attempted in battle: they descended in the Markham Valley west of Lae, to block the escape of 20,000 Jap troops fleeing before Australian forces which had been landed to the east

## The FRENCH TAKE OVER the ISLAND of CORSICA

In single file, Goumiers who landed with French units move up the Teghime mountain pass

ITALIAN TROOPS IN CORSICA, dejected by the turn of events, stand about a destroyed German tank smashed by French mobile forces which took the village of Patrimonio. Significantly, the Italians are still holding on to their arms while awaiting further orders from their conquerors

*On right*—WITH A WARSHIP IN THE BACKGROUND: French troops march from the docks of Ajaccio into the town to complete the first occupation of Corsica. As they came in from the south, the Germans left hurriedly from the north, leaving the island again in French hands

# THE GLIDER PILOTS OF THE BRITISH ARMY

*How they are Trained to Fly the Heavy Horsas which can each Carry Twenty-eight Soldiers into Action*

**R.A.F. PILOTS TRAIN THE ARMY GLIDER PILOTS. The photographer is here looking into the blunt nose of the Horsa glider: The R.A.F. instructor is on the right, and the Army glider pilot on the left. All instruments and controls are in the front of the cabin and between the two men**

The news that British glider-borne troops had gone into action in Sicily was received with particular satisfaction at the school in England where, for months previously, glider pilots who took part in the operations were trained. When, early in 1942, the R.A.F. formed glider-training schools to produce pilots on a much greater scale than had hitherto been attempted, it was Flying Training Command which had to fulfil this need, without interrupting the normal flow of R.A.F. air-crews. This Command trained all the British glider pilots who are now in the Mediterranean theatre; the pictures reproduced on these pages were taken during instructional flights.

Upon passing his course on Hotspurs, the Army pupil earns the wings of the Glider Pilots Regiment. The heavy glider conversion stage is the next. The bulk of the Horsa is rather awe-inspiring to the new pilot, but he fines the controls few and simple and the aircraft very responsive. The course here is not designed merely to teach the pilot how to handle the operational glider. It is devised to make him resourceful and adaptable to variable conditions of weather and terrain. He must be able to land accurately in an area much smaller than the average airfield; and to bring his glider to rest on a given spot.

The pupil learns formation take-off, formation flying on tow and formation landing. He also does night flying, full-load flying, long cross-country trips, and various types of approaches. The syllabus also includes "remote releases," which means that the glider casts off from the towing aircraft miles from the spot chosen for landing. This method of approach adds to the surprise of attack, as the enemy hears no engine noise. Accurate course-steering and map-reading by the pilot are necessary for this form of release, so he has a good deal of practice in them.

The pupil's great moment is when he is first given the responsibility of taking up a live load.

The glider pilot must know a good deal about his aircraft. He is taught correct loading—disposition of the men and equipment. He must know something about its maintenance and be able to judge its airworthiness. To achieve this, he watches the assembly and dismantling of gliders. His ground instruction also covers such things as signals, aircraft recognition and laying out flare-paths. When he has landed his glider in enemy territory, he fights alongside his comrades.

**THE GLIDER-BORNE TROOPS ENTER THE AIRCRAFT. Twenty-eight of them can be carried in the great motor-less plane, which is the size of a heavy bomber. The Horsa has a square nose and a tricycle undercarriage**

**A VIEW, TAKEN IN MID-AIR, SHOWING A NUMBER OF GLIDERS FLYING IN FORMATION towed by Whitley bombers. Each bomber tows one glider: the latter normally ride about 20 ft. higher than the tug plane to avoid the turbulence caused by its propellers**

**ANOTHER VIEW OF THE HORSA GLIDERS IN MID-AIR, showing how close they can fly in formation: When the pilots are sufficiently proficient, they are taught to take off, fly in tow, and land, in formation: in addition, the glider pilots also receive instruction in night flying**

THREE HORSAS, HUGE CIGAR-SHAPED GLIDERS WITH WINGS SET MIDWAY ALONG THE FUSELAGE, ABOUT TO LAND IN FORMATION after disengaging their tow-ropes from the Whitley tugs. The bulk of the Horsa is somewhat awe-inspiring to the new pilot, but he soon finds the controls few and simple and the aircraft itself very responsive. He is taught to land accurately in an area much smaller than the average airfield

TWO VIC FORMATIONS OF GLIDERS BEHIND THE WHITLEY BOMBERS: Release can be effected from either the glider or the tug, and both aircraft are equipped with radio for inter-communication

TROOPS OF AN AIRBORNE DIVISION LOADING FREIGHT INTO A HORSA. In some cases, even light artillery can be carried. When heavy loads are taken aboard, a special loading-platform is built to facilitate the operation

THERE ARE TWENTY-FIVE SOLDIERS IN THIS PICTURE: THE HORSA'S FULL LOAD IS TWENTY-EIGHT. The men are accommodated on strong benches which run the length of the fuselage, and they carry their equipment with them

# STRATEGICS in the MEDITERRANEAN

—*Special Sphere Maps and Diagrams*

**THE LINE ACROSS ITALY AT THE OPENING OF THE BATTLE OF THE VOLTURNO, showing the position of the Fifth and Eighth Armies from Termoli to Capua :** After the capture of the city of Naples, the Nazis—as was expected—fell back to the line of the Volturno River. For the assault on this line, the Eighth Army linked up with the Fifth, to provide a (more or less) continuous line right across the rocky spine of Italy, as indicated in the map above. It will be noticed that between Capua and Campobasso is a great roadless mountain mass—Mount Miletto, which has been described as another, though lesser, Mount Etna. This was the hinge of Kesselring's defensive line across the narrowest neck of the Italian peninsula. Termoli, where landings were made behind the German lines by the Eighth Army, was at the northern end of the British line ; the mouth of the Volturno, to the west of Capua, at its southern. In the preliminary fighting—before the struggle for the Volturno itself—the main preoccupation of both sides was to secure the west-to-east, and north-to-south, roads within this area

**CORSICA AS AN ADVANCED AIR BASE : What the capture of the airfields on the island means in the Mediterranean air offensive.** When the Germans fled from Corsica under the spur of the Fighting French Commandos and Corsican patriots, they abandoned to the Allies airfields which may prove of the very greatest value in the present air offensive against the Nazis. The map above indicates distances within 50-mile circles from Bastia. To Germany itself the distance, by way of Northern Italy, is but 350 miles : the whole of German-held Italy is within very short bomber-range from the island ; the occupied French coast is but a mere hop. Should it be decided to install heavy bombers on the many good airfields now in our possession, the cities of Turin and Milan, Genoa and Leghorn, Venice and Bologna, can be subjected to a bombardment much heavier than that possible to British-based aircraft faced with a very long flight out and home. The eastern shores of the Adriatic, too, come within easy bombing range, with the port of Pola but 280 miles away and the Yugoslav coast some 350 miles

# THE NEW 17-POUNDER ANTI-TANK GUN

**THIS IS THE NEW GUN—24 ft. from muzzle to trail, with a semi-automatic breech action which gives it a very high rate of fire. It has a split trail for wide traverse, and a muzzle "brake" to absorb recoil. "Fixed" ammunition is fired—i.e., shell and cartridge are fitted together, as with a rifle**

At the end of 1941 gunnery experts of the War Office and the Ministry of Supply sat down to consider the trend of development of German tanks.

We had at that time the 2-pounder and 6-pounder anti-tank guns which were a match for all the existing German tanks. It was the business of the experts to prepare for the next move. They deduced that the Germans would pin their faith in very heavy armour and big guns, regardless of the speed of their tanks or their mobility. They envisaged a German fortress on tracks, slow-moving but immensely powerful. These experts then set to work to build the gun to meet and defeat that tank. They designed the 17-pounder anti-tank gun as the big brother of the 2-pounder and the 6-pounder anti-tank guns, each of which had been acclaimed the best anti-tank gun of its kind.

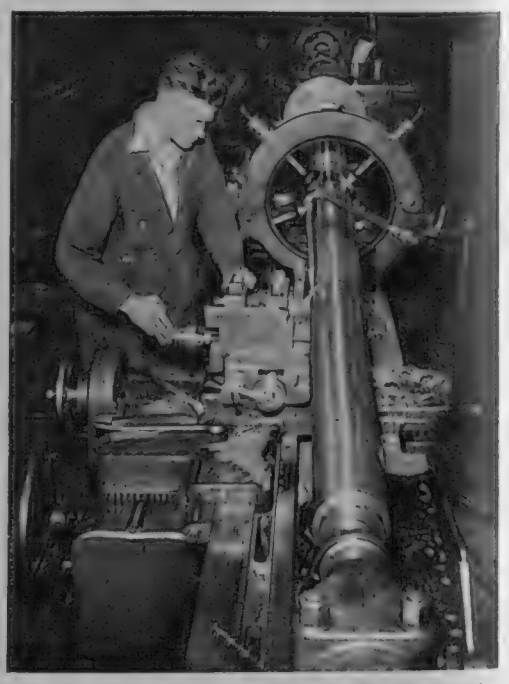
By one of those coincidences which novelists envisage, the 17-pounder anti-tank gun and the tank it was designed to defeat both went into action for the first time on the same day. They did not actually meet, but the coincidence was still remarkable. Since then the 17-pounder has shown that it can do all that was claimed for it. It can be trusted to knock out the most heavily armoured enemy tanks at anything up to 1,000 yards' range. It is the complete answer to the Tiger.

The fighting in the Western Desert and North Africa in the early part of this year saw the first battle test of the 17-pounder. The first report received was that the 17-pounder had only once been fired in anger, and on that occasion the third shot blew the turret off the tank at about 1,500 yards. It is said that the sole remaining occupant realised something had hit him, but could not make out what it was. The 17-pounder really got going for the first time when the enemy put in his "spoiling" attack late in April. One gun "outed" three tanks in three rounds at first light. In a later attack, one 17-pounder got six tanks, including two Mk. VI Tigers, in hull-down positions, and was itself destroyed by a tank which fired simultaneously with the gun's sixth round.

So far as possible, the 17-pounder has been used offensively "looking for trouble," and in defence its range allows it to be sited farther back or defiladed farther to a flank and thus to spring a surprise on the enemy tanks.

In the ordinary way, it would take two years to produce the gun from the time the designs were finished. The first 17-pounder was actually produced in five months, and they have since been pouring from Ministry of Supply factories in continuously increasing numbers.

The gun measures just over 24 ft. from muzzle to the end of the trail. It has a semi-automatic breech action which makes it possible to maintain a very high rate of fire. The trail is split, giving a wide traverse. It is fitted with a muzzle "brake" which absorbs much of the recoil and stabilises the carriage.



**THE GUN BEING BUILT IN THE FACTORY : Finish-turning on a 17-pounder gun-barrel. Great numbers of this new weapon are already in service with the Army**

**WHERE THE EIGHTH ARMY LANDED AT TERMOLI ON OCTOBER 3—a special map showing a detailed view of the country where the Germans made a number of counter-attacks and put up a stiff resistance to our advance. The landings had evidently taken them by surprise and upset their plans**

Whilst the Eighth were coming up the east coast of Italy after the capture of Foggia, General Montgomery decided to hasten events by landing troops in the enemy's rear at the little port of Termoli. Reference to the above special map will show the great geographical importance of this town and harbour in its relation to the operations around the Volturno River on the other side of the Italian mainland. Into Termoli come the mountain road and railway line from Campobasso: the spot is, therefore, a valuable hinge for the whole Eighth Army, as well as a valuable supply base through which stores and equipment can be poured. As an indication of its value, the Nazis reacted quickly and violently: troops were sent flying northwards to Termoli and attack after attack was made by Kesselring to eject our forces. In the event, however, aided by further reinforcements, the Eighth repelled all the attacks and a new line was firmly established. And thus the threat of outflanking the Nazis around the Volturno and delivering a "right hook" to their line farther south grew with every day that passed

**THE ISLAND OF COS, IN THE DODECANESE, occupied by us some weeks ago and now recaptured by the Germans after a desperate resistance by the R.A.F. Regiment—a special "Sphere" drawing showing the island's geographical features**—*By E. G. Lambert*

Cos, or Kos, is some 21 miles long by about 5 miles in breadth: to the north of the island is flat country very suitable for landing-grounds: to the south, along the coast, is a lofty mountain range. In ancient times, the island was celebrated for its temple to Æsculapius, which was the seat of a great school of medicine: it was the birthplace of Hippocrates. To-day Cos has a population of about 10,000, mainly Greeks. After the collapse of Italy, the island was occupied—with a number of others—by British troops, principally men of the R.A.F. Regiment. But the Germans, apparently desirous of removing a probable threat to Rhodes (which they hold in strength after their subjugation of the spineless Italian garrison), delivered a heavy assault on Cos on October 3 by paratroops and by sea. Heavy fighting ensued, and eventually the British forces were thrust back into the hill country of the south, with the Germans claiming a goodly number of prisoners. Now it is known that the island is once again completely in German hands, and that our forces have suffered a corresponding set-back in their occupation of the Dodecanese group

# FROM THE BATTLE AREAS IN SOUTHERN ITALY

*Drawings by* Sphere *Artists of Scenes with the Fifth and Eighth Armies in their Northward Advance towards the Volturno River Area*

**A GLANCE BACK AT SALERNO : A SCENE DURING THE HOT DAYS OF SEPTEMBER 14-15, when the fate of the Fifth Army hung in the balance during the German counter-attacks : carrying the British wounded across the shore to the waiting landing-craft**—*Drawing by Roland Davies*

Since the establishment of the Fifth Army at Salerno, it has been revealed how critical was the situation on the beaches during the days of mid-September when the Germans were trying to cut our forces in two and drive them back to the sea. The choice of Salerno for the landings came as a surprise to some ; but it is now recognised that it was the only possible place under the circumstances, although not an ideal spot. The casualties were heavy during the early stages of the bridgehead formation, with September 14 and 15 as the period of the fiercest fighting : the British losses between the 8th and 20th have been announced as 5,211 killed, wounded and missing : the American losses were 3,500. The twelve days included the bitter fighting in the mountains to the north of Salerno itself. During the operations, the British hospital ship *Newfoundland* was deliberately bombed off the beaches on the morning of September 13, and six British nurses and seventeen other persons were killed by direct hits : the ship caught fire and she was abandoned. The method of taking off the wounded from the beaches is shown in the drawing above : this was done by means of landing-craft run right up on to the beach, so that stretcher-cases and walking wounded could go aboard : later the landing-craft were taken out to the hospital ships lying offshore. In the picture the craft on the extreme left is the hospital barge. The evacuation of wounded went on whilst fresh supplies were being landed on the same beach

**NAPLES BURNS : THE SCENE FROM THE ROCKY SLOPES OF THE ISLAND OF CAPRI as the city was sacked and burned by the Germans as they were forced out by the advancing Fifth Army. Capri lies some twenty-one miles to the south of Naples**—*Drawing by Roland Davies*

From the ruins of the Palace of Tiberius, on Capri, one can look across the bay towards Naples. This is the scene which the islanders saw as the Germans were preparing to pull out of the city in face of the advance of the Fifth Army. Naples was set on fire, it will be remembered, and what was not burnt was sacked : every building which the enemy thought would be of use to the Allies was destroyed, together with water conduits, sewers, bridges and other erections and public works

**THE COMING OF THE RAINY SEASON IN ITALY** WHICH CAUSED A SLOWING-UP OF OPERATIONS BY THE ALLIED FORCES. During this period river-beds become swollen torrents and the roads become seas of mud imposing severe handicaps on our troops—*Drawing by E. G. Lambert*

"Heavy rains have made the going so difficult that the Army is actually moving on its feet in some places—a rare phenomenon in modern warfare," writes one correspondent from Italy. Another has given a vivid account of the state of affairs in the Volturno region: "Recent heavy rains, turning roads into seas of mud, have imposed a severe handicap on our troops," he writes. "In addition to complicating the supply problem, they have increased the difficulty of effecting any large-scale crossing of the Volturno. Though ordinarily the river can be forded at waist-height, the water has now risen considerably. The banks, in many places between 10 ft. and 15 ft. high, have been turned into formidable slippery obstacles." With the rains have also come the mists; generally, the deteriorating weather conditions favour the enemy more than they do the Allies. This is indicated in the above drawing: what was, a few weeks ago, a dried-up watercourse over which wheeled vehicles could be driven at places where the enemy had destroyed the bridges, is now a broad river which only special types of vehicles dare brave. But, aided by big bull-dozing machines, Engineers are already at work clearing a way for the construction of a temporary bridge ready for the difficult weeks to come

**HOW ENEMY DEMOLITIONS HELD UP THE PACE OF THE ADVANCE: A SCENE ON A COAST ROAD IN SOUTHERN ITALY with British Engineers hard at work on a secondary road at a point where the enemy had blown up the new modern bridge**—*Drawing by W. G. Whitaker*

Scenes such as this have been frequent throughout the whole of the territory formerly held by the Germans. It shows the spectacle at the little town of Bagnara: at this point Commandos were landed and took the town from the sea; whereupon the Germans, in retreat, blew up the bridge, 180 ft. long, which carries the road up into the hills. All the debris fell on to a winding road below which (before the construction of the more modern route) served as the highway: immediately, Engineers set to work to reopen this secondary road; here they are seen drilling a containing wall, to insert charges and blow it away in order to open up the alternative route. Undoubtedly, the Nazis expected to delay the advance of our troops longer than was the case

# MARCHING THROUGH ITALY

*Scenes with the British Army as the Infantry Press on Towards the Italian Capital*

**IN A TOWN KNOWN TO THOUSANDS OF ENGLISH VISITORS: 3-in. anti-aircraft guns in the square at Amalfi; the building in the background is the eleventh-century Cathedral of Saint Andrew**

The events of the Italian campaign at this moment certainly provide an opportunity to explode the popular fallacy about the complete motorisation of modern armies. The drawing by Mr. Osmond given here shows a body of British troops swinging along an Italian road on foot: this does not mean that the Army authorities have neglected to provide sufficient mechanical vehicles, or that shipping has been inadequate to carry such vehicles to Italy. But when a European country with a variety of configuration is invaded, and the size and complexity of the armed force is immensely increased, then it is quite impossible to motorise all the infantry, unless a phenomenal amount of transport is employed—and then it would not be wise.

This is because much of the advancing and fighting must be done away from the roads, across country, over rough hills and mountains, through woods and down long stretches of demolished or barricaded highway and built-up (but knocked-down) areas.

The Fifth and Eighth Armies are mechanised all right. Advanced troops or flying columns travel in transport; the supply, repair, engineering, medical and signal corps use lorries, while each infantry formation, down to the platoon, has its transport for carrying equipment and squads of special men. For the purposes of a particular operation every man may temporarily be given a lift. But the hard core of the infantry spends most of its time on foot. If railways can be made available, so much the better: otherwise the general advance is governed in speed by the marching capacities of the great body of troops—average of fifteen miles a day or about two miles an hour, twenty miles a day by forced march, perhaps thirty miles by highly-trained troops in an emergency. (Napoleon's Grande Armée marched sixteen miles a day. Sixty miles in twenty-four hours has been claimed for certain of our shock units and reconnaissance troops in this war!)

**"FOOTSLOGGING" THROUGH SOUTHERN ITALY ON THE ROAD T… infantry forward by the normal lorry method. Thus 'foo…**

A correspondent has described how our infantry began to march along the coast road from San Giovanni through Scilla once they had landed on the toe of Italy. "It was just a pleasant though rather arduous walk through magnificent scenery with an occasional pause to reconnoitre round the next corner," he said. And again: "We were sending carriers ahead to reconnoitre, and bringing up infantry after them in single file, hugging the cover of the cliff face." Afterwards the Eighth Army proceeded at an average pace of some fifteen miles a day, though sometimes they did twenty-five miles a day up the Adriatic coastline, and mechanised advance units tore ahead to effect that famous juncture with the Fifth Army.

Even if every man in Italy had a reserved seat in a lorry, he would not be able to use it for half his time. The road passes through hilly country. The enemy holds the tops of those hills. In order to advance, the Army must deploy and fight for miles across untracked fields and hillsides, up and down gullies, across streams. Even the most agile tanks and "jeeps" may be defeated, and once again the mule becomes the only means of transport. Thus we should at once cease to regard our infantry as glorified tourists in comfortable lorries, and recognise their remarkable modern toughness on the march, a toughness which has enabled operations in this war to be conducted with unprecedented speed.

*On left*—**BRINGING ORDER OUT OF CHAOS AMONG THE ITALIAN FORCES:** Before Italy declared war on Germany, thousands of Italian officers and men were roaming the country, some in uniform and others in civilian clothes. They were hitch-hiking their way home or just hanging around the streets of any town where there was enough food to support them. The Italian officers for the most part washed their hands of all responsibility for order and discipline, saying that they could not give the men orders because they had no control over them. British military police and A.M.G. conducted round-ups at various points, where stragglers were formed into organised groups under an officer and sent to assembly areas. After training and re-forming there, the Italian troops will work as drivers, engineers, labourers, etc. Here an Italian colonel—the senior officer in Lagonegro—is seen leaving by motor-cycle with a contingent of troops now under his command

**IN ROME:** Owing to the special conditions of the terrain and the intense demolitions of the enemy in many regions, it has often been impossible to move the "footslogging" has become the order of the day, with pipes cheering the men of some of the Scottish regiments on their way—*Drawing by Edward Osmond*

**STREET SCENE IN FOGGIA,** which fell to the Eighth Army on September 28. A hungry woman is being given biscuits by an R.A.F. airman out of his own rations, whilst another enjoys a drink of fresh water from his water-bottle

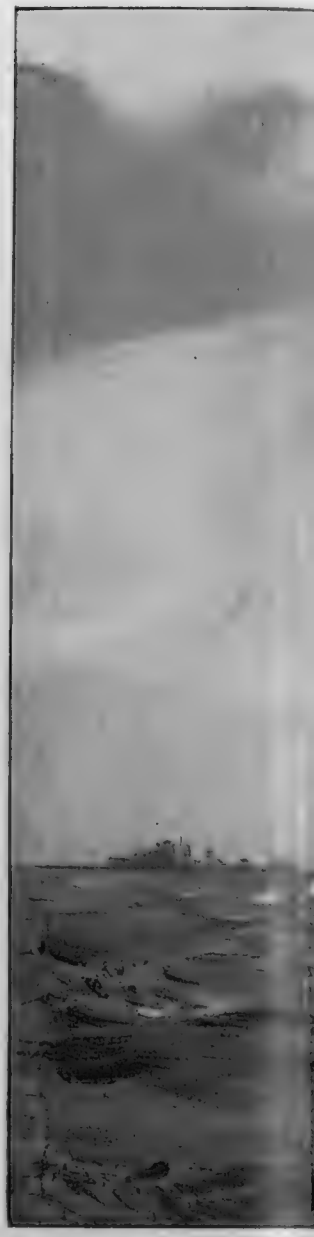
**A CURIOUS STRUCTURE IN NAPLES:** An air-raid shelter of unusual shape which was erected among the many bomb-damaged buildings within the heavily-raided areas near the waterfront

# The FREEING of the EASTERN MEDITERRANEAN

*Scenes from the Great Inland Sea where the Royal Navy Now Holds Absolute Sway Since the Capitulation of the Italian Battle Fleets*

**THE ITALIAN SEAPLANE-CARRIER "GIUSEPPE MIRAGLIA," which arrived at Malta after the surrender of the main Italian Fleet. She is here seen at her anchorage, surrounded by surrendered Italian submarines and a destroyer**

This carrier is of a type unlike those of the British or American Navies. She was formerly the *Citta di Messina*, presumably a merchant vessel or small liner, and was reconstructed for her present duties at the Spezia Dockyard during the years 1924-27. The *Giuseppe Miraglia* has a displacement of 4,880 tons; her length is 377 ft., with a beam of 49 ft.: her armament consists of four 4-in anti-aircraft guns and four machine-guns. With engines developing 12,000 h.p., her speed is 21 knots: the complement of officers and men carried on board is 180. The vessel carries four large and sixteen smaller planes, and she has facilities below for repairs and renewals. There are two catapults—one forward and one aft—for launching the aircraft from the deck. They cannot be directly flown off, as on British or American carriers, owing to the position of the bridge amidships



**A SCENE IN THE EASTERN**

**HOW THE ITALIAN FLEET SAILED FROM MALTA TO ALEXANDRIA: Some of the warships photographed from the air as they neared their destination in the Eastern Mediterranean. The surrendered vessels moved under a powerful air "umbrella" put up by the R.A.F., and they were escorted by British warships during their uneventful voyage. Reconnaissance planes circled overhead at mast-height to watch for U-boats, while high above fighter aircraft kept watch for Nazi bombers**

**MEDITERRANEAN, WHERE THE ROYAL NAVY IS ONCE AGAIN IN SUPREME CONTROL OF ALL WATERS. One of the latest type British battleships, of the King George V class, supported by her destroyer escort, passing a Greek sailing-ship-minesweeper**—*Drawing by Montague Dawson*

With the coming-over of the Italian Fleet and the subsequent transference of its principal units to Alexandria, the whole Mediterranean area became free of enemy surface vessels. The possibility of German submarines invading these waters has not been overlooked, however; and the sowing of enemy mines by aircraft has also to be watched. Mr. Dawson has suggested this additional freedom of the Mediterranean in his drawing above: it depicts a great battleship steaming through the sunlit waters with a picturesque Greek sailing-ship-minesweeper in the forefront of the scene. These latter vessels are converted sailing craft, with high pooped hulls, which have been doing good work in the clearing up of doubtful waters. One of the consequences of the Italian surrender was the complete cessation of all enemy shipping movements through the Dardanelles Straits. Formerly several German, Italian or Rumanian merchant ships used to pass every month from the Black Sea to the Aegean, and vice versa; not one traversed the Straits in either direction during the month following the Italian capitulation. The reasons for this interruption are scarcity of shipping and the lack of escorting warships since the surrender of the Italian Fleet. Consequently, the Germans are now relying exclusively on the land route to send war material and oil to Greece, and they must be faced with a very hard problem regarding the forwarding of supplies to the Dodecanese Islands. With the recent declaration of war on Germany by Italy, the position has clearly worsened for the Nazis, as now the surrendered Italian Fleet will be actively co-operating with our own naval vessels throughout the whole Mediterranean area

**BRITISH WARSHIPS AT ANCHOR IN TARANTO HARBOUR, IN THE HEEL OF ITALY. This great port and naval base is now being used by the Royal Navy: when it was taken over, it was found to be but little damaged, either by Allied bombing or by Italian demolitions. The two vessels seen in the picture above exhibit their effective wartime camouflage schemes as they lie at anchor close inshore. Now that the Italian Navy is an active ally of the Royal Navy, the only remaining dangers for our warships in the Mediterranean area are from Nazi mines, from long-range aircraft and from those enemy submarines which may have been ordered into the Inland Sea**

**AIRCRAFT VERSUS U-BOATS IN THE BATTLE OF THE ATLANTIC—How the Liberators swoop down on the Nazi submarines, which then try to confuse the aircrafts' bomb-aimers**—*Drawing by Wm. McDowell*

# The NAVY at WORK

In the Atlantic, in the Far North of Europe, and Around the Shores of Britain
—*Special* Sphere *Drawings*

After the great summer "lull" in the Atlantic, the "wolf-packs" of the Nazis again became active during September and the present month. But the U-boats have discovered that the Allies have not been idle in the meantime, and several new surprises have been stored up for the merchant-hunting submarines. Just as the U-boats hunt in packs, so do the Liberator aircraft operating far out in the Atlantic. These fine planes have an enormous range and endurance: operated by a crew which ranges in number from six to nine, they can cruise over danger areas for hour after hour, thus forcing the submarines to stay where they can do least harm—well below the surface. The drawing above illustrates what happens when aircraft happen to meet a submarine, or submarines, at a moment disadvantageous to the latter: the incident depicted occurred in the Bay of Biscay, when a formation of three U-boats was sighted travelling at high speed. The "pack" was suddenly surprised by the Liberators, and with one accord all three put over their helms and crash-dived while still circling. The hope of the submarine commanders was that the curved wakes would make it more difficult for the bombers to locate them when submerged. But the bombers were too swift, and they had already dropped a stick of bombs accurately across the submarines' course

THE HOME FLEET GOES OUT TO ATTACK ENEMY SHIPPING IN THE NORWEGIAN FIORDS IN THE BODO AREA, 70 miles south of the Lofoten Islands: In the foreground of this picture (taken during the actual operation) the "Duke of York" is seen in battle formation with her accompanying cruisers and destroyers whilst aircraft which took part in the raid are returning overhead to land on the deck of the American aircraft-carrier which formed part of the naval force

Shortly before the news of the "midget submarine" attack on the *Tirpitz*, the Admiralty announced another naval operation in Norwegian waters. This was an attack by a combined British and American naval force on German shipping in the Bodo area, about 125 miles south of Narvik. Amongst the vessels which took part were battleships of the Home Fleet, cruisers and a number of destroyers and units (including at least one aircraft-carrier) from the United States Navy. Eight German ships were hit by the striking force of torpedo-bombers and 'dive-bombers flown from the carrier's deck. It was the first raid by an American carrier on German-occupied Western Europe, and the results show that it was a complete surprise to the Germans and was an unqualified success

*On left*—**ON BOARD THE AIRCRAFT-CARRIER "INDOMITABLE": Albacores on the flight deck. On the right, pointing to an aircraft from the bridge, is the ship's Commanding Officer**

*Indomitable* is amongst our newest carriers: she was ordered in July 1937, begun in November of the same year, and completed in 1941. She is a vessel of 23,000 tons, with a complement of 1,600: her length is 760 ft., with a beam of 95 ft.; and her speed is 32 knots. Little other information concerning the vessel has so far been published. Sister-ships are the *Implacable* and *Indefatigable* and, say the reference books, "possibly others." The Albacores seen in the picture on the left are torpedo-spotter-reconnaissance biplanes, the wings of which fold for stowage below deck: these aircraft have earned a very fine reputation in the present war

**THE LITTLE COASTWISE SHIPS OF BRITAIN STILL PLY IN WARTIME WITH THEIR VALUABLE CARGOES**—*Drawing by Wm. McDowell*

In normal times fit only for carrying coal and cement, to-day British coasters are carrying precious cargoes from port to port round Britain, thus relieving the strain on the hard-worked railways. These vessels—"dirty British coasters with salt-caked smokestack," as Masefield has described them—are daily running the gauntlet through E-Boat Alley and bringing in their cargoes to little piers at out-of-the-way harbours which have assumed a new lease of life since the outbreak of war. The drawing above shows one such coaster in a tiny port taking aboard a cargo which includes bundles of rushes to be used for packing guns and ammunition during railway transit

**MARIENBURG, SOUTH-EAST OF DANZIG AND 200 MILES BEYOND BERLIN: Smoke and flames from the wrecked Focke-Wulf aircraft factory soar high as the Fortresses, still flying in compact formation, turn from the target and start the long journey home. Note how the total bomb-load from all six aircraft has fallen on the one spot, completely obliterating it from view: this is "precision bombing" indeed!**

# BOMBING by the FORTRESSES by DAYLIGHT

*The Amazing Results Achieved by the Big American Bombers in Their Attacks on Germany*

The pictures reproduced on these pages show how the big bombers of the U.S. Eighth Air Force have been operating during recent raids over enemy territory in Western Europe in daylight. Unlike the night raiders of the R.A.F., the Fortresses carry out "precision," as opposed to "area," bombing—with what success two of the pictures given here demonstrate in remarkable fashion.

The Fortresses invariably fly in close formation: sometimes they are escorted by fighter aircraft, at other times they fly alone, depending on their own heavy armament to beat off the attacks of Nazi fighters. The two pictures of the Marienburg attack show the amazing accuracy of the American bomb-aimers from medium heights. In both, not a single bomb explosion can be seen outside the target area. But within the 100 acres covered by the factory under attack, not a square inch has escaped.

The picture immediately above shows how the big aircraft fly on their daylight sorties—always in close formation. This is for two reasons: 1—as a protection against enemy fighters; and 2—so that the target area can be covered with a definite bomb "pattern." The Fortress bristles with guns: each aircraft carries a total of either twelve or thirteen, and it is safeguarded from every angle.

Great as are the numbers of Nazi fighters claimed by the Fortresses, the figures are always checked and re-checked. The whole secret lies in the combined fire-power of each Fortress formation. During recent weeks, the number of Nazis destroyed within a few days has risen to hundreds, and with comparatively little loss to the bombers.

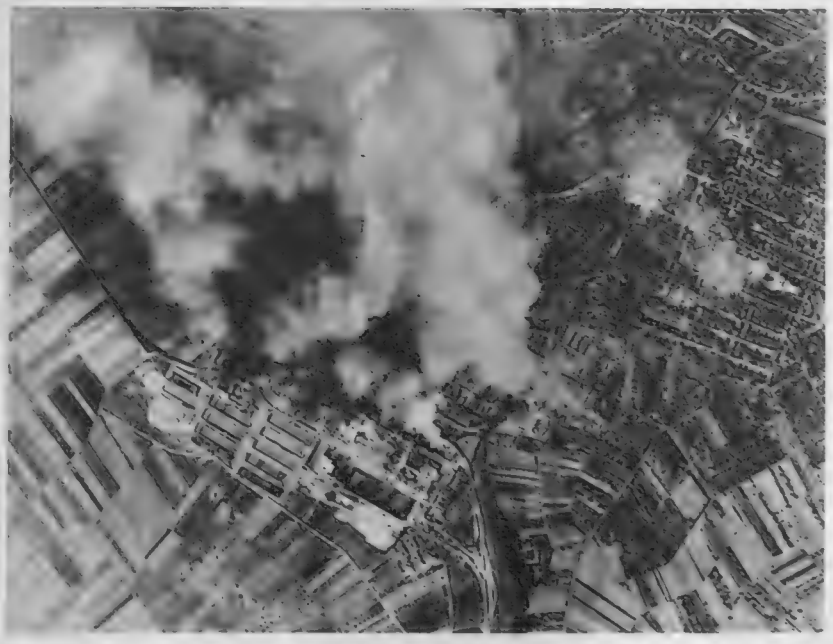
**THE ANKLAM FACTORY, NEAR STETTIN, BURNING FIERCELY after the attack by Fortresses on the same day as the Marienburg attack. Almost every important building contained within the area of the plant was hit**

Anklam is the home of the Arado Flugzeugwerke, a factory which produces vital component parts for the German F.W.190 fighter aircraft. It lies to the north-west of Stettin some 90 miles north of Berlin. To reach it, the Fortresses which carried out the attack on Saturday, October 9 (the same day as the Marienburg attack) had to fly a distance out and home of 1,200 miles.

The Arado factory suffered heavy damage, every important building being hit: many fires were left burning in the works, and other buildings. Anklam is in Pomerania: centuries ago it was a Slav fortress; to-day it has many foundries and factories. High explosives and incendiaries were both dropped on the target, and the whole factory area was a mass of fire

**MARIENBURG: THE FOCKE-WULF PLANT COVERS MORE THAN 100 ACRES: HALF OF ALL THE F.W.190 FIGHTER AIRCRAFT OF GERMANY WERE PRODUCED HERE.** In the picture it is shown completely covered in bomb bursts, with not a single bomb dropped outside the target area. Note the manner in which the Fortress bristles with guns which protect it from every angle against enemy fighters

**THE BIG ARMS AND LOCOMOTIVE CENTRE OF KASSEL burning after 1,500 tons of bombs had been dropped on it on October 4:** This picture was taken by an American plane after the attack on Kassel. Most of the crews which took part in this heavy raid agreed that the enemy seemed unable to decide which was the main target in the important industrial area which the bombers were going to attack. Many hours after the city had been devastated, as the result of 1,500 tons of high explosives and incendiaries being unloaded within half an hour, fires were still raging in the city



**AFTER THE BOMBING OF FRANKFURT BY FORTRESSES ON OCTOBER 4, when heavy damage was wrought in a strong daylight attack:** Approximately half of the Heddernheim Vereinigte Deutsche Metallwerke, an important producer of metal aircraft propellers, was heavily damaged in the daylight attack on October 4. This picture, taken shortly after the opening of the assault, shows fires blazing in the central and south-east parts of the target area. The bombers flew well over 300 miles through a screen of enemy fighters to give this big inland port and industrial centre its first daylight hammering

# ARE WE THE LOST TRIBES?

*The Second of Two Articles Dealing with "British Israel" and the Theories Which They Hold.* Described by CHARLES GRAVES

THERE is another side to the beliefs of British Israelites in addition to presuming the survival of the ten lost tribes. Its members believe that the Pyramid at Gizeh prophetically tells the future, from the Autumnal Equinox of 4000 B.C. to September 17, A.D. 2001. The champion of this aspect of British Israel belief is Mr. David Davidson, an elderly engineer who has spent forty years on Egyptology, astronomy, archæology and a profound study of the Bible. It was in 1921 that he published a book on what the Pyramid (not the stars) foretells. This attracted tremendous interest, and the number of members of British Israel passed the million mark and rose to 5,000,000. Unfortunately, Mr. Davidson was too exact. He stated unequivocally that on May 29-30, 1928, "the world would enter the worst tribulation it had ever experienced in historical times," and that the time of termination of these troubles destined to be borne by the Anglo-Saxon race would be September 16, 1936. Interest was increased by the publication of a series of long articles written by Mr. Davidson in the *Morning Post* in the first few months of 1928. The looked-for day finally arrived and nothing happened. The stock market was booming. Everybody was having a fine time. The British Israelites shrank from their peak of 5,000,000 to a few thousand.

To-day, the official British Israelite view of the gaffe committed by Mr. Davidson reads as follows: "Looking backwards with a statistical and factual background which we now possess, it can be very definitely seen that the Depression commenced at the end of May 1928, and that on the 30th May there began the artificially stimulated shipments of gold that ultimately upset the stability of international exchange upon which our present civilisation is based." Against this I will quote another official extract: "We should never quarrel with events for their actualities. The most important thing about the study of prophecy is to get our events right first. If we find that the study of prophecy mirrors or reflects events as they are in actuality, then we are entitled at least to express agreeable surprise. But to do this we must put first things first. We must not reverse the prophecy and try to force events to fit our facts. This is a common cause of distortion in interpretation."

This quotation applies to other dates where poor Mr. Davidson went so hopelessly wrong. These prognostications are all based on the passages, galleries and chambers inside the Pyramid. The theory is that the passages are a chronological representation of history to the scale of one Pyramid inch to a solar year. (Mr. David Davidson himself admits that "certain authorities have repeatedly asserted that the Pyramid inch is a figment of the imagination.") In this way, it is reckoned that the Israelites left Egypt in 1486 B.C., that Solomon's Temple was dedicated in 1000 B.C., and that the British Bank Charter Act was passed in 1844. (The latter is certainly correct.)

The trouble is that the British Israelite publications in 1936 do not show any sign of the war starting on September 3, 1939. On the contrary, "September 16, 1935, heralded the dawn of the age in which time should cease to witness to the ruthless exploitation of the commodities of air, land and sea by man." To quote again from Cedric Morris's *Prophecy in the Great Pyramid*: "From this time [September 16, 1936] until the end of the King's Chamber period on August 20, 1953, the building race is portrayed as wandering through the Mystic Wilderness, having come out of the Mystic Land of Egypt. . . . The present return of the Jews to Palestine is a spurious one. . . . Prophecy reveals that the final and authorised return will not take place until the hosts of Gog and his allies have been vanquished. Prophecy shows this battle as being the Battle of the Lord. It is thus indicated as occurring during the period when we have come under Divine protection. This places it within the King's Chamber period. The dating of the termination or south wall of the Chamber of Chaos is November 27, 1939."

When I spoke of these prophecies to Mr. Stough, he protested that the British Israelites did not believe that the Great Pyramid was an *Old Moore's Almanac*, adding, however, that 1945 is half-way between 1936 and 1953 when, on August 10 of that year, the history of the building race as such will end, and from then until September 17, 2001, true reconstruction will take place to prepare the earth for the rule of Christ, for the symbolic period of 1,000 years.

Among the documents of the British Israelites is a plan of "the Hall of the King of Kings." This shows that since the last war the operative days in the history of mankind were August 20, 1923, the aforementioned May 29, 1928, and September 16, 1936, followed by June 25, 1941, December 20, 1941, March 4, 1945, and May 16 and November 10 of 1948. This plan shows three 5's, which are described as the three 5's of victory, and are said to refer to five geographic feet of the Old Adamic race. The late Sir Flinders Petrie termed this foot the Mediterranean Foot. Later, it became the Roman Foot, and in 1943 it became my foot. In Pyramid symbolism, it appears as the equivalent of the modern gold standard, according to the British Israelites. Which, as you will agree, is most interesting. One must admit, however, that Lewis Carroll put it much more neatly in his description of the White Knight.

A leading British Israelite, who conceals himself under the initials of "A. R. H.", gives a very clear picture of the purpose of prophecy in a sixpenny pamphlet entitled *Britain's Triumphant Destiny*. "The prophetic picture," he says, "is like a slow-motion film which shows how and why an action is done, but does not determine the action itself any more than the cameraman controls the feature of the film in operation. The prophetic pictures of the Bible are like the trailer of a film which shows glimpses of outstanding or isolated features, but not the whole story itself. If," he observes, "everyone knew in advance which horse was going to win the Derby, no one would go to see the race." (This is quite untrue, of course.) "Similarly, Biblical prophecy gives us a pre-view of world events in an ordered sequence, without spoiling the effect by revealing all the details of fulfilment."

"A. R. H.", conscious of Mr. Davidson's minor errors about major events, carries on with the following paragraph: "A prophecy and its interpretation are not the same thing, for there can be as many interpretations of a thing as there are interpreters. Prophecy and interpretation are, however, persistently confused one with the other, so that many people think that if an interpretation fails, then the prophecy itself is confounded." What could be fairer than that?

If any of you are at any future time bothered by British Israelite prophecies, you need only raise the issue of the attack on Soviet Russia by Nazi Germany. Between ourselves, this is the conclusive event which the most erudite British Israelite finds difficult to explain away. M. H. Gayer, O.B.E., author of *The Heritage of the Anglo-Saxon Race*, published in 1928, foretold a sudden attack by Russia on Palestine. It would, he said, probably be some serious situation in the Far East engineered (as China was in 1927) by Bolshevist agents with the main object of dissipating our resources, and handicapping our efforts to meet attack nearer home: "Allied to Gog and Gomer, as the third member of this confederacy to overthrow Israel is named, is Turkey, who will hope for an opportunity to recover her lost possessions in the Near East. Ezekiel indicates two important characteristics of this invasion," writes Mr. Gayer: "Thou [i.e., Gog] shall come up from thy place out of the north parts [Russia], thou, and many people with thee, all of them riding upon horses."

Mr. Gayer continues: "The foregoing prophecies concerning the wide use of horses may appear puzzling.

"The map, however, shows the enormous physical difficulties Russia will encounter in an overland invasion of Palestine (an invasion by sea is obviously out of the question).

"The great mountain ranges she will have to cross, the Caucasus, Taurus, anti-Taurus and Lebanon—the impossibility of constructing railways through them in the time available—the impossibility of using any sort of mechanical transport over such country—all this makes it clear why Russia will have to rely upon horses.

"Countless numbers of horses and mules can alone provide the requisite transport for Gog's immense hordes; and such are exactly the conditions for which she is at present preparing with feverish haste.

"Russia already possesses half—if not more than half—of the world's horses. Russia is purchasing horses by the thousand, especially from North America, and the type is the one best suited, not for farm or draught purposes, but for work in mountainous districts like the Rockies of British Columbia—wiry and surefooted.

"These horses are being collected in the South of Russia, whence Gog's armies will start on their long march.

"Such are the hosts that will be gathered 'to the battle of that great day of God Almighty' (Rev. xvi, 14).

"Their objective is Jerusalem.

"It is clear that the destruction of Gog takes place in the plain of Esdraelon—*not* at Megiddo, as is generally supposed, but round about Jerusalem 'on the mountains of Israel,' 'in the valley of Jehoshaphat,' or 'the valley of decision,' as it is described in Joel iii, 12-16.

"Here Gog and his hordes will be destroyed by the hosts of heaven. God's destruction is brought about by plague and pestilence, by terrific rain and hailstones and sulphurous fires. In addition, earthquakes and volcanic fires take their toll, so that five-sixths of his armies, numbering millions, will perish.

"So great will be the slaughter that seven months will be required to bury the slain, while it will take seven years to destroy the enormous military equipment."

To revert to the Pyramid, it is possible to do anything with figures. Most people know the mathematical trick which proved in 1914 that the Kaiser was the original Beast of the Revelations, and that, without any alteration, Hitler can be made to fit the same role to-day. As for Biblical prophecies, I could, if I had the space, prove with the utmost ease that Hitler is the original Gadarene swine, Jezebel, or anyone else you like to mention. All one has really got to do is to take away the number one first thought of and add a few mystic sevens, day scales of lunar and solar periods—but, of course, it is always vital to take away the number one first thought of.

**THE ARCHBISHOP OF YORK IN MOSCOW WITH THE RUSSIAN ECCLESIASTICS**

Dr. Garbett is now back in England, where he returned to London on October 9. During his visit to Russia, the Archbishop spent nine days in Moscow, where he saw many of the Russian ecclesiastics and witnessed some of the social experiments being carried out by the Soviet. The Archbishop was leading a delegation from the Church of England to express Anglican sympathy for the sufferings of the Orthodox Church of Russia at German hands. This picture, brought back by the delegation, was taken in the Russian capital: it shows, from left to right in the front row—the Metropolitan Alexis, of Leningrad; the Archbishop of York; His Holiness the Patriarch Sergei; the Metropolitan Nicolai, of Kiev; in the back row are—the Archbishop of Gorki; the Rev. F. H. House; the Rev. H. M. Waddams; the Archbishop of Riazan; and Dean Nicolai

*The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export*

# PICTURES FROM NAPLES

*Since its Occupation by the Allies on October 1st*

**THE FIRST ALLIED CONVOY TO ARRIVE IN THE HARBOUR AT NAPLES. In the foreground are the ruins of the waterfront; in the background is Mount Vesuvius**

**THE PEOPLE OF NAPLES GO ABOUT THEIR BUSINESS IN THE CITY STREETS. Some of them are carrying meagre provisions, others are walking free of fear for the first time in months. Children on their way to school, or at play, mingle with the crowd who, only a few days before, thronged the streets to greet the Allies when they arrived and occupied the town**

The port of Naples is in ruins. The harbour was blasted by Allied bombers operating from North Africa. In the last four months, concentrated attacks of the Flying Fortresses and Liberators by day, and by R.A.F. and R.C.A.F. Wellingtons by night, ruined the docks and sank many enemy ships in the harbour. Some of these craft were salvaged and repaired by the Germans, only to be scuttled before they evacuated the town. Warehouses, quays and all harbour installations had been bombed so often that repairs were futile. In spite of this heavy damage in the industrial and port areas, the greater part of the town itself had been spared. In the central and eastern parts of the city, most of the damage was done by the retreating Germans in an orgy of destruction before they evacuated it. The University, the Cathedral, the Royal Palace, churches and hospitals, had, however, remained substantially undamaged.

**THE LITTER OF WRECKED ITALIAN FIGHTER AIRCRAFT left by the Germans as obstructions on the landing ground at Capodichino Airfield, near Naples**

**THE FIRST PICTURE FROM THE VOLTURNO BATTLEFRONT: British troops removing enemy tank obstacles from the road as they advanced towards the river. Shortly after this picture was taken the Fifth Army had crossed the Volturno and were pressing on towards the north**

# AWAY FROM THESE WARS . . . .

## Memories and Thoughts of the Years Between

—A Fortnightly Causerie **By J. G.**

**COLMANS and Cotmans.**—The princely bequest lately promised by Mr. Russell Colman, H.M. Lieutenant of Norfolk, to the City of Norwich—a bequest of the whole of his world-famous collection of paintings by the Norwich School—deserves, in the crisis of total war, the tribute of wide publicity as the best means of informing the public what it will gain by the gift and what extent of gratitude is due to the donor and his family. The brilliance of its light has a wide radius, and every figure in the scene concerned is lit up.

Big events—be they sad or cheerful, triumphs or disasters—invariably find their best expression in simple words. We keep superlatives and purple passages for the trivial things of human life. I shall try to speak of this bequest in simple language. There have been in modern times many bequests and donations of art collections for public enjoyment in England and America, and treasures of art are much too dignified and priceless to be condemned to comparisons in degrees of munificence, or money values. It is enough to say that the selected Cotman water-colours hung in one room alone at Crown Point, Mr. Colman's home—a tithe of the whole collection—form a gallery which for beauty and charm and merit can be justly described as priceless.

In a long drawing-room at Crown Point, some years before the war, these chosen pictures—perhaps forty of them—were displayed in a setting, and with the art of selection and grouping, never surpassed. Every consideration of tones and colours, of harmony and contrast, had been considered. The colour and texture of the wall background was designed to harmonise with the tones of the mountings, and these last bore the individual, dominant tones of the paintings they mounted.

It is my regret that I can no more speak or write of art than of strategy or music or of a score of other themes. I have gazed at those Cotmans there displayed with all the ignorance and all the unspeakable, indefinable ecstasy with which I listen to the Fifth Symphony of Beethoven. I cannot comprehend the art, I am only conscious of the effect. Grandeur, serenity, the divine inspiration, these forces flow mysteriously over my soul, washing away the scum and dross and littleness of ordinary, humdrum existence and giving a momentary flash of certainty that there *is* in human nature that divine spark, and that no human eye is denied the chance to see the flash, if very, very few among the human race can make the contact which creates it.

**The Magic of Cotman.**—That immortal hour or those divine minutes of consciousness must have come to many who have stood in that long room at Crown Point. In this instance, also, Nature took the hand of Art and co-operated in the divine manifestation. The man who painted the pictures lived and worked in the scene in which the gallery is set. What lies outside the windows is relevant to what is displayed within. The Cotmans, like the Colmans, were Norwich and Norfolk worthies and lived and worked in, and loved, the Norwich scene, though the great Cotman did much of his best work in Yorkshire and Normandy. As regards the pictures specially selected for display in the room I have described, the layman can say no more than that they cover the whole range of his art and all stages in his progress to perfection, and that that art of water-colour painting is a medium unique and exclusively Cotman's, and that it somehow combines the possibilities and excellence in the art of the great masters of landscape in oils and the excellence of all other masters in water-colour. In his unique medium he achieved the effects possible to the masters in both mediums.

The paintings in the long drawing-room at Crown Point are, as I have said, but a tithe of the whole collection. Every room and passage in the large house is filled with works of the Norwich school painters, of whom Cotman and Crome were but the chief masters of many. The Stannards, Thirtle, Vincent and Stark of the later days of the school are all splendidly represented, and there are drawers and presses filled with unmounted drawings by many of these masters besides Cotman. Mounted and unmounted, there are paintings and drawings of this great school to the number of 1200 and upwards. And the house contains besides a library of Norfolk literature and topography of the widest range and value. The nucleus of the whole collection was formed by Jeremiah James Colman, Mr. Russell Colman's father, a great merchant prince in Victorian days, a great sportsman and a great benefactor of Norwich, but the greater part of the collection was brought together by the present head of the house and the great firm by purchases from other famous collections of the school, notably the Theobald and the Reeve, and by wide and exhaustive search.

The Colmans are a very old Norfolk family, whose parish records in the county go back to the fifteenth century. In more modern times Wymondham was the family centre, and the move to Norwich was made early in the nineteenth century when an ancestor, Jeremiah Colman, with his nephew, James, having acquired flour and mustard mills near Norwich, established the firm of J. and J. Colman at Carrow. Carrow Abbey, an old, religious foundation on the banks of the Wensum, was the home of the family until the building of Crown Point in 1870.

This large country house, which is of its period and fashions, has no great architectural merits, though it fits well into its setting of parkland, woodland, marshland and rich agricultural land, characteristic of that part of East Anglia.

**Si Monumentum . . .**—It is not my design to strike a personal nor an intimate note in this reference to a notable event in the world of art. Since Crown Point was built and lived in by the Colman family, four generations of Colmans have invested it with traditions which England has every cause to be proud of, and every inducement to honour and to preserve. Traditions of service above all. Generation after generation, the owners and sons of the house (and their womenfolk) have put service and duty first. One by one they filled the responsible and onerous offices in the county and in local government, made the hospitals and welfare services their care, and assumed their places, as soon as they came to man's estate, in the working and direction of the great firm at their doors.

**THE DISCOVERER OF PENICILLIN, the new drug which has revolutionised the whole medical world: Professor Alexander Fleming, whose years of research in antiseptics led up to the great discovery, at work in his laboratory at St. Mary's Hospital. It was in this same room that Sir Almroth Wright, father of vaccine therapy, also worked**

Norfolk is a county of sportsmen and a paradise of sport. The traditions of Crown Point in point of sense and sanity and simplicity of living are no less eminent than in point of service. In the field of sport, the best of everything was at the disposal of the family and—subject always to the rule of duty and service first—they enjoyed their opportunities to the full. Generation after generation, they turned out grand sportsmen, splendid shots practised in the art of flighting, partridge driving, snipe shooting on the marshes; they were fine cricketers, keen fox-hunters, notable field naturalists, almost all of them craftsmen in simple local crafts. They have proved for several generations natural leaders in social, political and business life, liberal, far-sighted, broad-minded, tolerant; a force in their county directed to conciliation in political and social controversy. Their worth as an English family is beyond question, and beyond question that worth has been appreciated in their own county.

The wars of our time has not spared them. Again, generation after generation, the sons of the house have given their lives in defence of England, and to-day few families in Britain can show a more grievous sacrifice to duty and patriotism, so irreparable a blotting-out of high hopes and great promise.

The future of great country houses is very uncertain. It is unlikely that such houses will be occupied by single families in the decades ahead. Crown Point is no Knole, in architectural merit or in the antiquity of its traditions. But its traditions are no less worth preserving and remembering as an example and a stimulus to duty, service, simplicity and integrity, valuable to our race in times howsoever changed.

The owners of Knole have taken preliminary steps to find a workable expedient whereby the great house may be preserved with its historical associations. There is in the announcement of the Colman bequest a hint that a suitable gallery will be built in Norwich to house the splendid collections in Crown Point.

As time passes, it may be that some such expedient as that proposed for Knole may ensure that the Crown Point collection shall remain where it is, and that Norwich may one day benefit by the uses, some miles beyond its city boundaries, of a great country house of noble traditions and amenities. Some such disposition in the imponderable years that lie ahead, would be an apt and worthy memorial to two great families, the Cotmans and the Colmans of Norfolk; to their work, to their example and to their service.

**A DISTINGUISHED RECENT VISITOR TO BRITAIN: Mr. L. J. Harnett, Director of Ordnance Production and Chairman of the Army Inventions Directorate in Australia, who recently paid a short visit to this country in connection with the great Antipodean war effort**

## The New London Stage Productions

Reviewed by PHILIP PAGE

"*LANDSLIDE.*"—The Westminster Theatre is, geographically speaking, hardly in the centre of theatrical London (though it is nice and handy for Buckingham Palace). But I know of few theatres with so enviable a record; within the last few years we have seen excellent Shakespearean seasons, some Ibsen, Mr. Donald Wolfit's notable revival of *Volpone*, and a couple of James Bridie's masterpieces—*Tobias and the Angel* and *Mr. Bolfry*. The latest production, *Landslide*, shows a sad falling-off, to put it mildly. I do not know the French play on which this is based, though I cannot think it can have amounted to much. But I do know that three acts of very young men and very young women making love to each other (quite properly and even mildly) while marooned by a landslide in an Alpine hotel bored me indescribably, not because they were very young, but because it was a very bad play. They all had to talk too much and, for the most part, with untiring facetiousness. This was not, of course, the fault of the young people in question, some of whom were good and some not so good. Miss Julise Gray made the most of about the only serious episode; she commits suicide not, as would have been quite reasonable, to get away from the chatter, but because of an unhappy love-affair. She is a young actress of much ability. So, too, is Miss Pearl Evans. Mr. John Byron was the best of the males.

"*The Tragedy of Nan.*"—The Poet Laureate's truly-named tragedy was written nearly forty years ago. Revivals have been few, for it is a grim affair. That at the little Mercury Theatre takes full account of its grimness and is in every way highly efficient. Also, it introduces a new actress to London—Miss Pauline Letts, who, in the name-part, gives a performance which is a good deal more than promising. I fancy we shall hear much of Miss Letts. Miss Muriel Davidson struck the right note as surely the most detestable character ever portrayed on any stage.

# THE KING AT WINDSOR

*And Pictures of Other Important People in the Forefront of the News at Home and Abroad*

**MARSHAL BADOGLIO IN SOUTHERN ITALY.: A picture taken recently at an Italian Naval Headquarters. With him is Lieut.-General Sir Noel Mason-MacFarlane, who was C.-in-C. at Gibraltar and who is now Leader of the Anglo-American Military Mission in Italy. The Marshal is head of the new Italian Government, which has just declared war on Germany and which is co-operating closely with the Allies in naval and military operations**

**THE KING AND QUEEN IN THE QUADRANGLE AT WINDSOR CASTLE, with the King at the Salute, as 300 members of the Boys' Brigade marched past during the sixtieth Anniversary Parade.** The 300 boys were representative of the 132,690 who now comprise the organisation. With the King and Queen was Princess Elizabeth. On the following day, October 18, the Queen (with the Princess Royal) was present at Westminster Abbey for the Service to commemorate the fifth birthday of the A.T.S.

**GENERAL WAVELL LEAVES ENGLAND TO TAKE UP HIS APPOINTMENT AS VICEROY OF INDIA, where he arrived on Sunday night last by air. He was accompanied by Lady Wavell, and by his daughter, the Hon. Felicity Wavell—both of whom are here seen with Lord Wavell in the launch which took them out to the flying-boat**

**THE EMPEROR OF ABYSSINIA IN HIS CAPITAL, making a speech on the occasion of United Nations Day in Addis Ababa. On his right are Mr. How, British Minister to Ethiopia; Bitwoded Makkonnen, a member of the Abyssinian Cabinet; and Abeda Araghai, the Minister of War**

The World of Books—By Vernon Fane

# A BIOGRAPHY and a SHELF-FUL of NOVELS

*The Life of William Hazlitt; A Story of Hamilton Palace; A New Novel by Christopher Morley; Two Books on Ballet, the Merchant Navy and Prester John*

MISS CATHERINE MACDONALD MACLEAN has written an immense biography, 630 pages long, of William Hazlitt. I mention its length because it seems to me that this is a case where length is not necessarily a corollary to the importance of the subject. I remember, in fact, a shorter and at least as authoritative life of Hazlitt. But it appears that in BORN UNDER SATURN (Collins. 21s.), the author, who shows an evident devotion to Hazlitt's character, has felt it necessary to defend him against his traducers at great length and with detail and document.

Hazlitt was born in 1778 at Maidstone, and his father, a dissenting minister originally from Ireland, was a pioneer in the Unitarian Church. It was first intended that young William, too, should become a minister, but he was of a too-passionate and original nature, and found, first in painting and later in writing, the intense expression of a man who was to become this country's greatest critic.

Few people would have called him a fortunate man. His health was poor and his income as uncertain. His love-affairs were stormy, unsuccessful, and in one instance tragic, though it was that grief which he exploited in his *Liber Amoris*. He died in 1830, desiring that "some friendly hand" should consign him to the grave, and that hand proved to be Charles Lamb's.

Leigh Hunt, who differed from him so profoundly in character, once wrote an illuminating thing about Hazlitt—or rather, reported it from the man's own speech. It seems to hold the essential nobility and intransigence of the great critic in a few lines:

"It was finely said one day in my hearing by Mr. Hazlitt, when asked why he could not temporise a little now and then, or make a compromise with an untruth, that it was not *worth his while*."

In Xanadu did Kubla Khan
A stately pleasure-dome decree . . .

And just outside Glasgow at the beginning of the nineteenth century the Duke of Hamilton decreed the building of the greatest non-royal residence in Europe, the famous Hamilton Palace. It was enormous, magnificent, stately and deserved all these epithets. It was also built on the foundations of a coal seam which was to enrich the Duke's descendants and cost the destruction of the great palace itself.

THE PLEASURE DOME (Peter Davies. 8s. 6d.) is the subject of Miss Elisabeth Kyle's new novel, written in episodic style and threatening to become artificial under the imposition of a too-rigid theme. What the author seems to say, in effect, is that aristocrats are magnificent, glamorous, gorgeous, but immoral and careless of the lives they ruin. "The poor" are good and deserving and hard done by, but they stand for ugliness and vulgarity and a general lowering in the standards of taste.

The sketches that illustrate this doubtful thesis seem too neatly dovetailed into the arbitrary pattern, and the chief fault of this book lies in its inability to sustain a good race all through, since the author must needs be dropping her characters and ever taking up fresh ones. However, the subject matter and many of the historical details are delightful, and the author writes as well as ever.

The history of the palace itself is interesting. It was completed in 1822 to the orders of the tenth Duke of Hamilton, called Magnifico, who was a British diplomat of high distinction known for his majestic patronage of the arts. It lay in the beautifully wooded Vale of Clyde and, in its early days, was too far away from the coal-mines for its view to have been spoilt. Throughout its history, which, for such a great building, was a short one, it knew contrasting scenes of splendour within and squalor without, for the local miners were in a constant state of revolt against the harshness of their working and living conditions, and they rioted and were killed at the very gates of the palace.

Year after year the mine-workings, too, drew slowly nearer and nearer as the old aristocratic order gave way before a new industrialism as typified in young Mungo Bone, whose family had for sixty years been tragically associated with the palace. By 1880 Bone was a rich man, and when his grandson returned from America in modern times to revisit his family's home-town he found the palace gone, the treasures sold up, the ancient splendour forgotten.

THOROFARE (Faber. 8s. 6d.) is the story of an English boy, Geoffrey Barton, who in the 'nineties travelled from his small village in Suffolk to the United States. He was ten when he set out with his Uncle Dan and left the "strong palisade of aunts" who had stood between him and the gales of the world. On the long, rough Atlantic crossing where Uncle Dan met Miss Barton, an English teacher whom he eventually married, Geoffrey began to look at the world for himself. When they arrived in America and a house was bought in Chesapeake, his education began in earnest. From that time on Mr. Christopher Morley's book consists of an affectionate description of Geoffrey's life, a kind of exercise in nostalgia, and shows his gradual understanding and love of the new country. It shows also the ways in which English people may adapt themselves to the customs of a new land. There is no definite theme save that which the author expounds with so much entertainment, of the reconciliation in a growing child, of the oddities and differences between England and America. Mr. Morley, it is clear, loves both countries.

**THANKSGIVING FOR THE "HARVEST OF THE SEA": The scene in the Congregational Church in the little fishing town of Mevagissey, in Cornwall, as fishermen decorated the Church for their annual Thanksgiving Service. It was adorned with nets, lobster pots and ships' lanterns, and the pulpit was arranged like the bow of a ship. Fishermen went to the service straight from the harbour in their seafaring rig and bearing gifts of fish wet from the sea and still alive**

I have read this week two books about ballet in England. The first is an account, lavishly illustrated, of the work of the successful choreographer of the Sadler's Wells ballet. ROBERT HELPMANN (Batsford. 8s. 6d.) has been written by Miss Caryl Brahms and is illustrated with seventy photographs by Russell Sedgwick, who is accordingly credited with co-authorship.

Mr. Helpmann has been trained, the writer claims, and developed solely in the Sadler's Wells company, save only for a little "fancy dancing" of a Saturday afternoon in his early Australian youth, and later foundation lessons with a colleague of Pavlova's. Now he has three ballets to his credit as original productions, and there is a school of thought that sees him as the most interesting producer since Balanchine. Miss Brahms has dealt most nobly with her subject.

THE NATIONAL BALLET (Black. 10s. 6d.) is a more sober affair, though hardly a less devoted one, by Mr. Arnold Haskell, who describes his book as "a history and a manifesto."

The three choreographers whom he discusses are Frederick Ashton and Ninette de Valois in addition to Mr. Helpmann, and he deals with their work seriously and in detail. His is an assessment of the past, present and potential values of the achievement of the Sadler's Wells ballet as a national artistic force, and he insists with some reason that this is not the book for a balletomane, but for anyone who cares for the future of British prestige in the arts.

In a number of appendices Mr. Haskell gives the bibliography of the Wells ballet, the key dates in ballet from 1910 to 1943, the chronology of Ashton's work and notes on the music, on the companies and on the repertoires.

In a foreword to Mr. Warren Armstrong's BATTLE OF THE OCEANS (Jarrolds. 12s. 6d.), Admiral Sir Sydney Fremantle writes that this is a book which "should help our fellow-countrymen to realise what manner of men our seamen are and the nature of their service. It should also help them to appreciate not only in war, but when the much-discussed peace plans are realised, all that they owe to, and expect as a matter of course from these men."

Mr. Armstrong, who has been himself an engineer officer in the Merchant Navy, writes of the service he knows so well and which is here shown at war in the period from mid-1939 to the spring of this year. Since he writes of what is proven and sober fact, his book has great force, and needs no exaggeration or hyperbole. It is safe to say that the deeds chronicled here as making up part of the pattern of the Merchant Navy's tradition have an epic quality indeed.

Elaine Sanceau, who has written PORTUGAL IN QUEST OF PRESTER JOHN (Hutchinson. 10s. 6d.), has a lively style for retailing the adventures of her fabulous hero. For centuries there had been legendary tales of Prester John, a Christian priest and king, whose kingdom was said to be somewhere in the East, but it was not until the fifteenth century that Portugal, then one of the world's great powers, decided to investigate these vague reports.

The Portuguese plan was to enlist the aid of such a king, if he existed, as an ally against Islam, and to this end, after much hardship, travellers reached the Court of the Christian Emperor of Abyssinia. There they found a young man with a round face, a colouring nearer chestnut than black, and a cloth-of-gold kilt. Later an Abyssinian mission was sent back to Portugal, and it is with their incredible adventures the latter part of the book is concerned.

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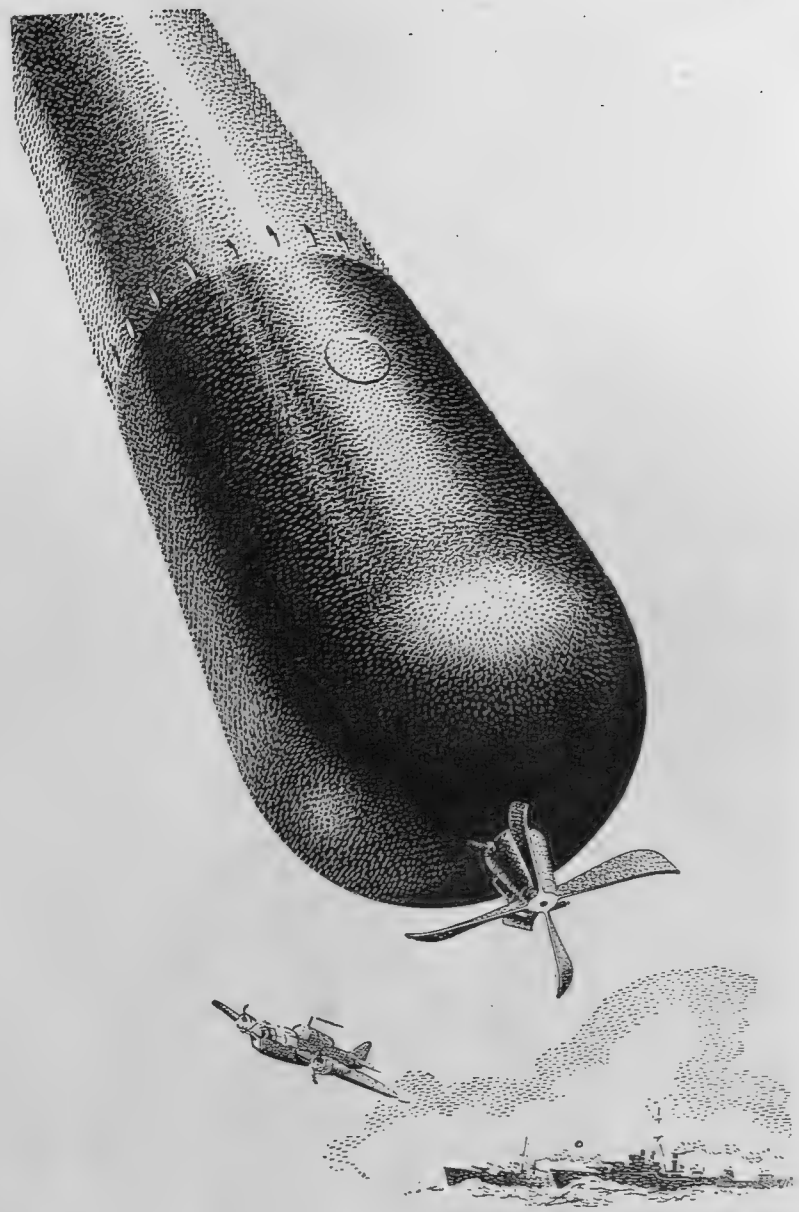

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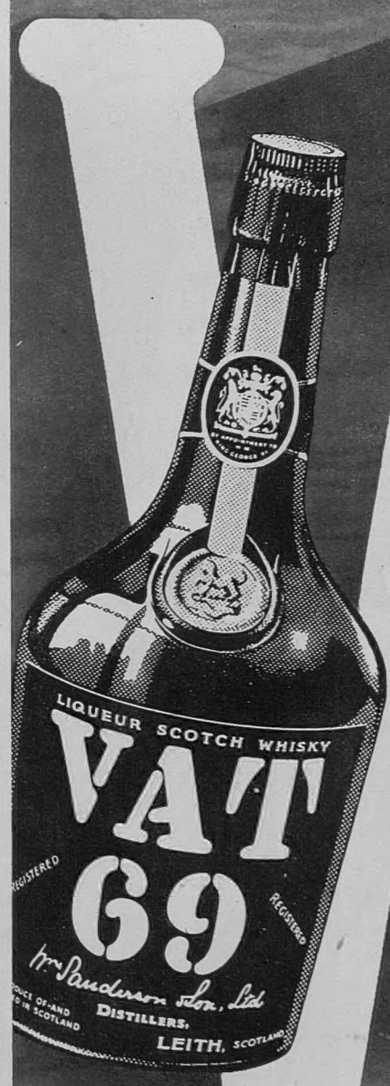


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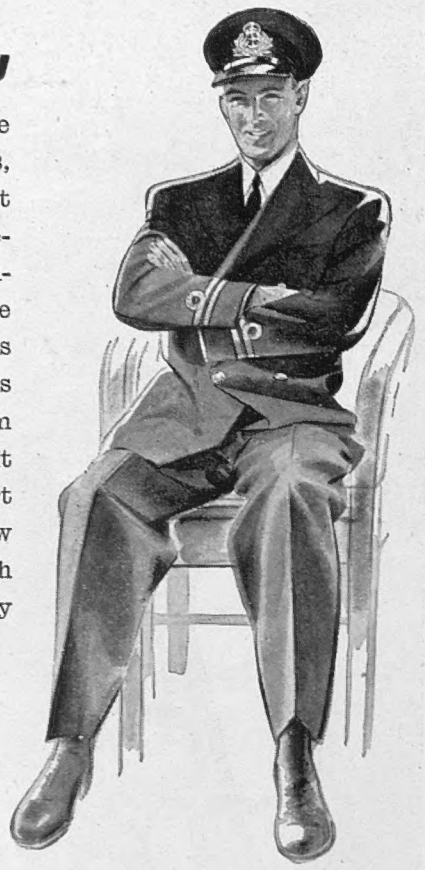

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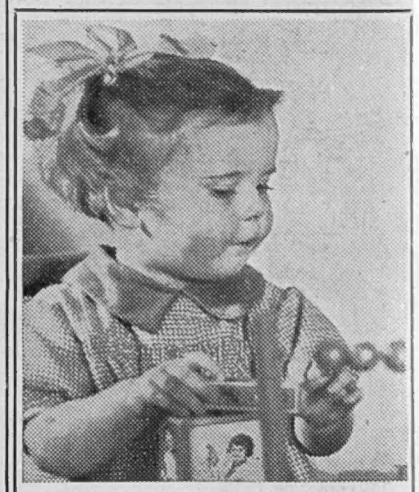

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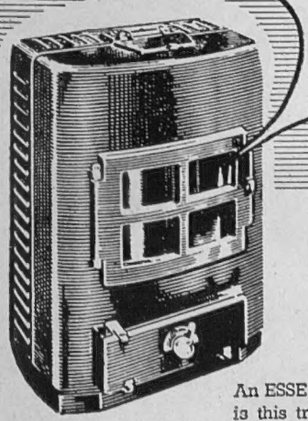

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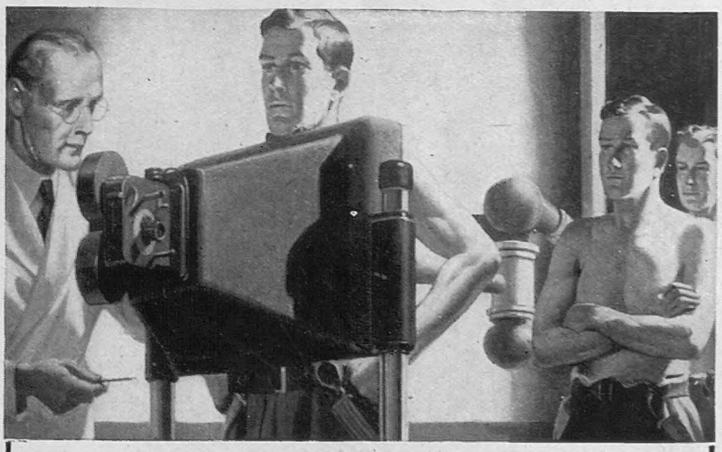

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